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Applied Harmony

by

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Revised, and with additional chapters
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006371

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CONSERVATORIO NACIONAL DE MUSICA
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Part II

Modulation and Chromatic Harmony

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Foreword.

Part II contains two methods of approach to the study of chromatic harmony. The first section, from Chapter I to VIII inclusive, is a study based upon *alterations of the chord.* The various chromatic alterations of each diatonic chord are discussed and illustrated, following the order of chords used in Part I. This section is less advanced in character than the second section and is suitable for high school classes.

The second section, from Chapter IX to XVII inclusive, is a study approached from the viewpoint of *scale chromatics.* This section follows the original Alchin text closely and is suitable for college classes, advanced students and teachers. There is necessarily some duplication of material in the two sections and considerable cross reference. The subject of chromatic harmony is, however, more interesting and of more value when approached from different angles.

Chapter XVIII is a brief exposition of contemporary tendencies and practices in harmony. It does not pretend to be more than an outline, but the music student of today can scarcely afford to overlook the harmonic experiments of modern composers.

New York City,
1931.

VINCENT JONES.

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Suggestions to the Teacher.

Following the principles of Part I, all new chords are introduced thru examples from music literature.

Singing Drills.

The quality of the new chord is perceived aurally thru singing drills. The *melodies* are given for individual work and for self help. The *three part exercises* are given for use in classes which are composed exclusively of girls. When possible the teacher should dictate the parts, rather than allow the class to sing from the text. The ear is usually more keen when the eye is not involved. For example: using No. 3 of Ex. 24, the teacher will dictate as follows:

Sopranos—do, do, do, ti, do.
Second Sopranos—so, si, la, so, so.
Altos—mi, mi, fa, fa, mi.

The students memorize the parts as dictated and then sing the three parts together. After singing, the students refer to the text. The same procedure is adopted for the exercises in four parts.

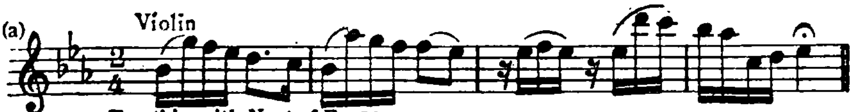
Keyboard Practice.

The exercises given provide ample drill in this phase. Chord progressions should be played *rhythmically* even when not indicated in the text. The patterns can be played in several different rhythms. The accompaniment forms included in various chapters can be used with two pupils at the piano, one playing the accompaniment while the other extemporizes a melody. The singing drills provide easy material for transposition at the keyboard.

Creative Work.

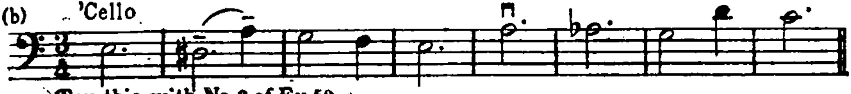
The accompaniment forms serve merely as a stimulus to the creative impulse. Students play the various forms and sing or hum a melody, allowing the harmonies to aid in the creative process. When a melody is satisfactory it is written and then criticised from the angles of (1) unity, (2) variety, (3) balance, (4) good or bad skips, etc. Write melodies for various instruments. For example: try the following melodies with the accompaniment forms indicated.

(a)



Try this with No. 1 of Ex. 52.

(b)



Try this with No. 2 of Ex. 52.

Melody Harmonization.

The melodies of Chapters I-VIII are graded in difficulty and definitely illustrate the chords discussed in the particular chapter. The melodies in Chapters IX-XVII are longer and present more difficult problems in form and style.

In every case:

1. Sing the melody; discuss tempo and general style of harmonization.
2. Find the cadences and discuss their relative importance in the rhythmic structure.
3. Select the chords for the cadences in relation to the rhythmic demand.
4. Discuss the harmonic regulation of each phrase and determine whether it is mostly diatonic or chromatic.
5. Select the chords and *inversions;* write the bass.
6. Add the inner parts and appropriate bytones.

Analysis.

The work in analysis should never end with mere recognition and spelling of the chords involved. The excerpts given provide material for class discussion of the *musical effects* achieved with certain harmonies. Analysis can be done in several ways. The teacher may analyze excerpts *with* the class, or students may work alone and report to the class. Some information concerning the composer and his harmonic style should always be given. From the examples in the text students should eventually acquire a concept of the harmonic styles prevailing at certain periods of musical development. When the appreciative phase is to be emphasized, the teacher should play longer sections of the music from which the excerpts are taken, concentrating upon the *general effect* rather than upon details.

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Chapter I.

Modulation.

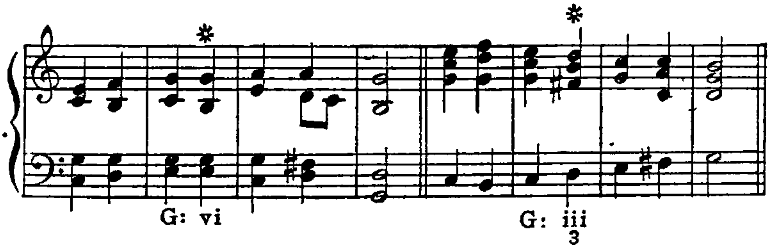
In chapters 17-18 of Part I, modulation to closely related keys was effected in several comparatively simple ways. It is possible to modulate to the dominant key by other methods. For example: after establishing the original key, enter the dominant key on a weak pulse thru each of its chords, following the order indicated in Ex. 1. Then complete the section in the new key as desired.

Ex. 1.

	original key			new key (dominant)	
1.	I	V7	I	I	etc.
2.	I	V7	I	V	etc.
3.	I	V7	I	IV	I_{5} etc.
4.	I	V7	I	ii	etc.
5.	I	V7	I	vi	ii etc.
6.	I	V7	I	iii	vi etc.
*7.	I	V7	I	vii7	etc.

Ex. 2 shows two of the above modulations in four part harmony. Nos. 1, 2, 3 and 4 were discussed in Part I.

Ex. 2.



Experiment with modulations to the subdominant key using the patterns of Ex. 1. It is less satisfactory to enter the new key thru IV or ii as these chords are not found in the original key.

When modulating to the relative minor, it is best to enter the new key thru i, iv, V7 or VI. Try these progressions at the keyboard and write four measure originals employing the same patterns.

Common Chord Modulation.

The foregoing has been largely modulation by common chord. Find all the chords in the key of G which also belong to the key of C. The only chords not common to C are those which include the scale 7th (f♯). The only chords in C which do not belong to G are those which include the scale 4th (f).

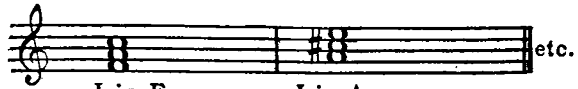
1. Find the common chords of C and its subdominant, F.
2. Find the common chords of C and its relative minor, a.
3. Check the modulations of Ex. 1, finding those chords which are common to both keys.

---

*This modulation will be discussed at length in a following chapter.

A major triad may be I, IV or V of major keys. Spell major triads on various pitches and place them in three keys. See Ex. 3. This drill should accompany the keyboard practice.

Ex. 3.



Keyboard Practice.

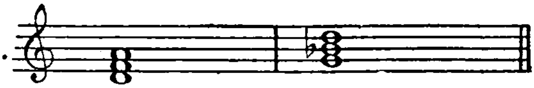
1. Play a major triad in four parts. Employ it successively as I, IV and V and make a cadence.

2. Play the following patterns. The model is given in C but the student should begin in other keys.

(1) I V$_7$	I I			(2) I V$_7$	I V$_3$			(3) I V$_7$	I IV		
C:	G:IV	I$_5$ V$_7$	I	C:	G:I$_3$	ii$_3$ V$_7$	I	C:	B♭:V	I V$_7$	I

A minor triad may be i and iv in the minor mode, and ii, vi, and iii in the major mode. Refer to Ex. 4.

Ex. 4.



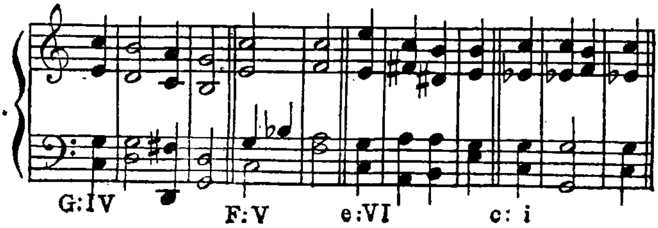
Keyboard Practice.

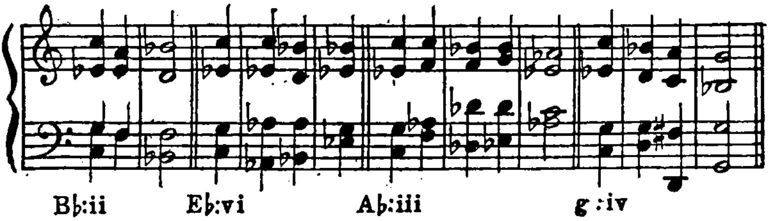
1. Play a minor triad in four parts. Employ it successively as i; as iv, ii, iii, vi and make a cadence.

2. Refer to Ex. 4. Starting in d minor, employ the tonic (i) of that key as the iv in *a* minor and continue in that key. Employ any one of the minor triads for any other and modulate. In general, follow the "natural" order of chord progressions.

A modulation may be effected by taking any chord in key for another diatonic. Ex. 5 shows the C chord taken as another diatonic.

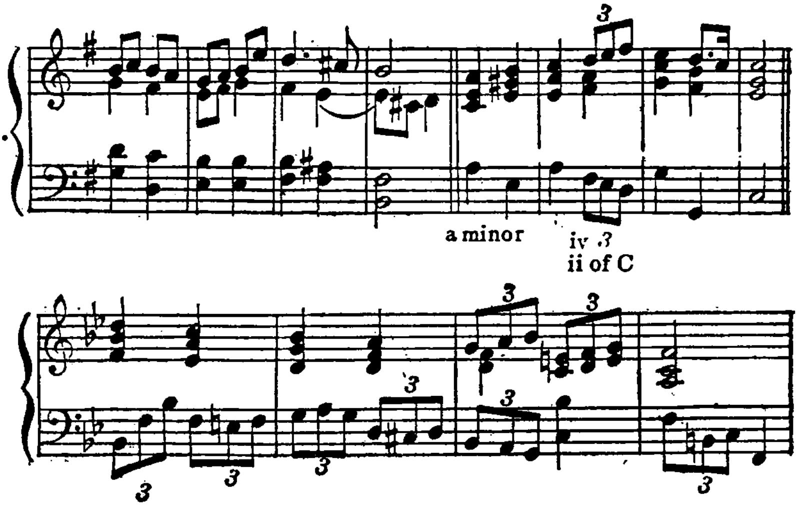
Ex. 5.





Write original phrases modulating by common chord as indicated in the keyboard patterns. Several models follow.

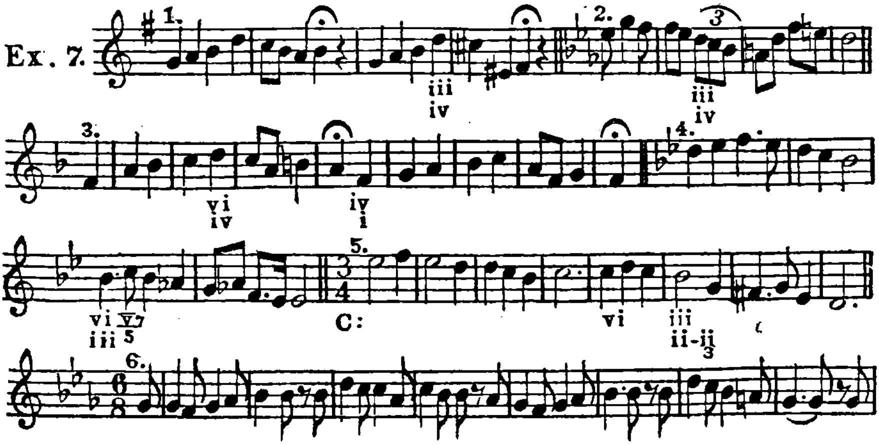
Ex. 6.

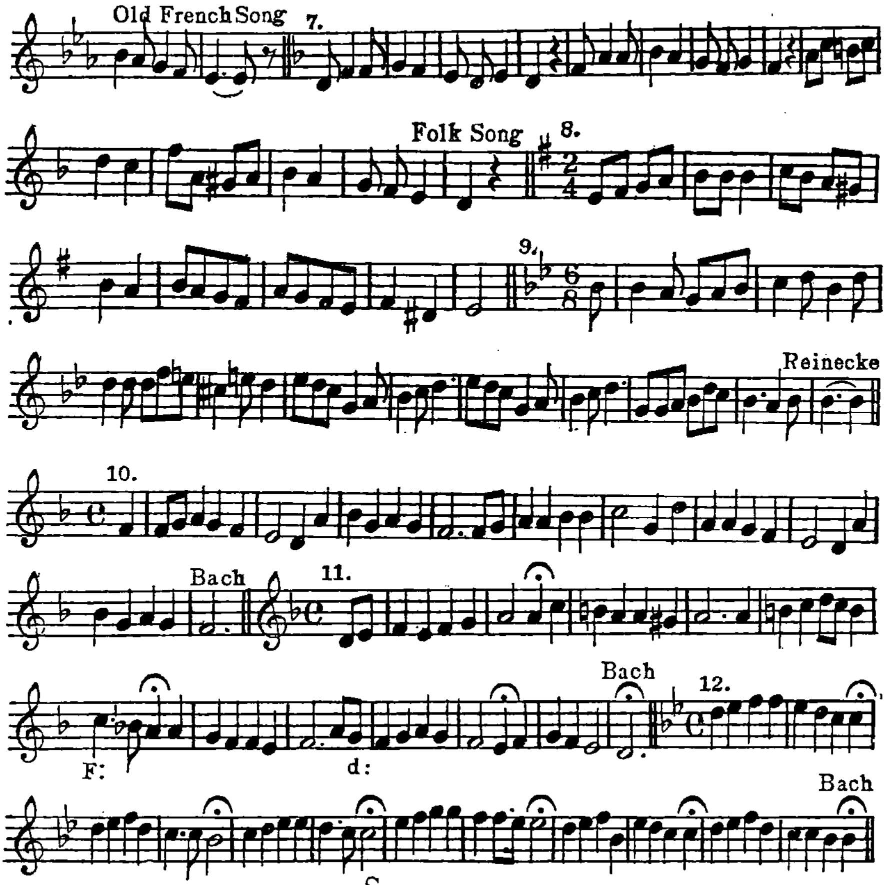


Melodies to Harmonize.

The melodies of Ex. 7 include modulations thru common chord. The shorter ones are given for practice rather than as models which would be used in larger forms. The keys are not indicated but the common chords are marked.

Ex. 7.





Summary.

In modulating from any key to the supertonic key (a large second above) the following are possible: employ ii as a new i; iii as ii; V as IV.

In modulating from any key to the mediant key (a large third above) the following are possible: employ iii as a new i; vi as iv; I as VI.

In relation to any given key, the supertonic key is the relative minor of the subdominant; the mediant is the relative minor of the dominant. These keys are said to be in the second degree of relationship to the original key.

Chart of Related Keys.

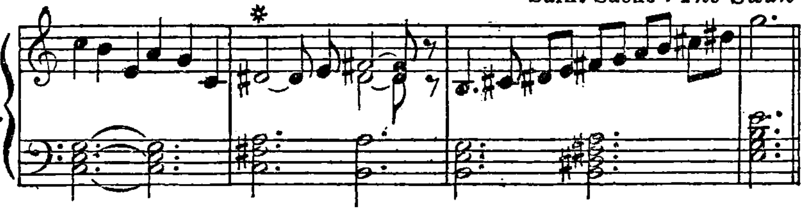
	First Degree	*Second Degree*
	↗ Dominant.......	relative minor (mediant of original)
Original key	→ Subdominant.....	relative minor (supertonic of original)
	↘ Relative minor.	

Chapter II.

Modulation thru the Diminished Seventh (vii°7°)

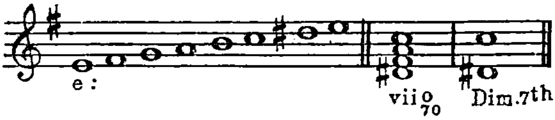
Saint-Saëns : *The Swan*

Ex. 8.



Play Ex. 8 and note the means of modulation. The excerpt is the second phrase of the composition, the first phrase being in the key of C major. The chord marked (*) is built upon the seventh degree of the minor scale (harmonic form). See Ex. 9.

Ex. 9.



What type of third is found in this chord? What interval is found from root to fifth; from third to seventh? The interval from root to seventh is a *diminished seventh*, being a half step smaller than a small seventh. Because of this characteristic interval the chord is termed a *diminished seventh chord.* This name refers to the species or type of chord and *not* to its key relation. Diminished-7th chords can be constructed on various scale degrees by chromatic alterations, but the only one which is diatonic is that built on the seventh degree of the harmonic minor scale. It is marked vii°7°.

Drills.

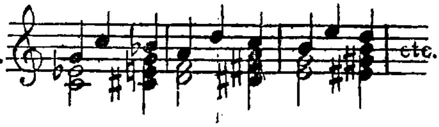
1. Spell diminished seventh chords from many pitches, thinking *three small thirds* in succession, as: g♯-b-d-f.

2. Construct a diminished seventh chord upon the scale seventh in all minor keys.

3. Name the scale degrees in the vii°7° and resolve them according to the principle of tonal magnetism.

4. Play Ex. 10 and continue it.

Ex. 10.

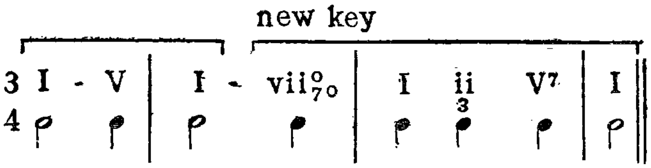


It is possible to modulate from any key to another thru the vii°7°. After establishing the original key, enter the new key thru vii°7°, preferably on a weak pulse, altho this is not necessary. Resolve the vii°$_7$° to the tonic. The resolutions will follow the principle of tonal magnetism, except that scale-4 may ascend to scale-5. Altho vii°$_7$° is diatonic only in the harmonic minor scale it may be employed in the major mode.

Keyboard Practice.

1. Modulate from C major or c minor to every key following the pattern of Ex. 11. At first use the root of vii°$_7$° in the bass. Later, try inversions. The voices should move smoothly, stepwise progressions being the most satisfactory. The pattern can be used for modulation from *any* key to *any* key. Employing bytones, particularly suspensions, helps to modify some of the more abrupt modulations.

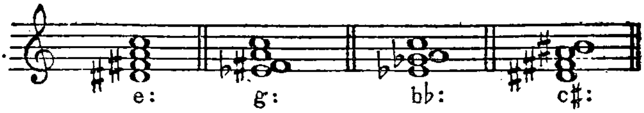
Ex. 11.



2. Play a diminished seventh chord in close position. Transform it into a V$_7$ by lowering any tone a half step. Resolve to the tonic.

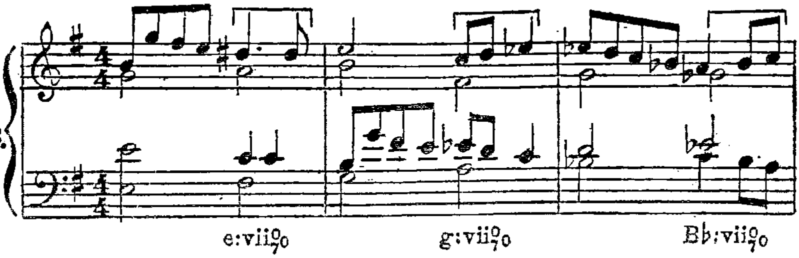
Any tone of a diminished seventh chord may be the root. Taking each tone as root, name the key in which it would appear ias vi°$_7$°; spell the chord, making necessary enharmonic changes. See Ex. 12.

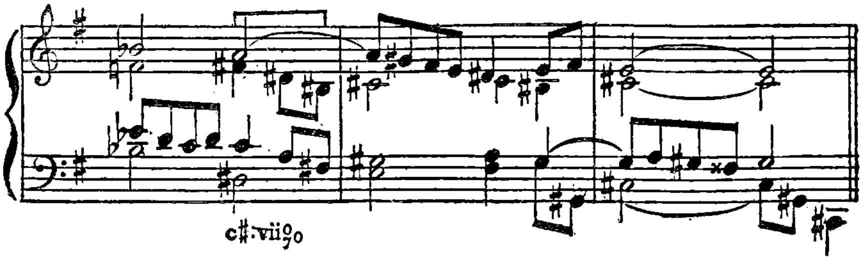
Ex. 12.



From Ex. 12 it is seen that one may modulate to four keys with any diminished seventh chord. In Ex. 13 this principle is illustrated with four part harmony, using the chords of Ex. 12.

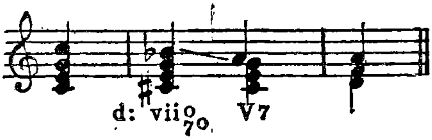
Ex. 13.





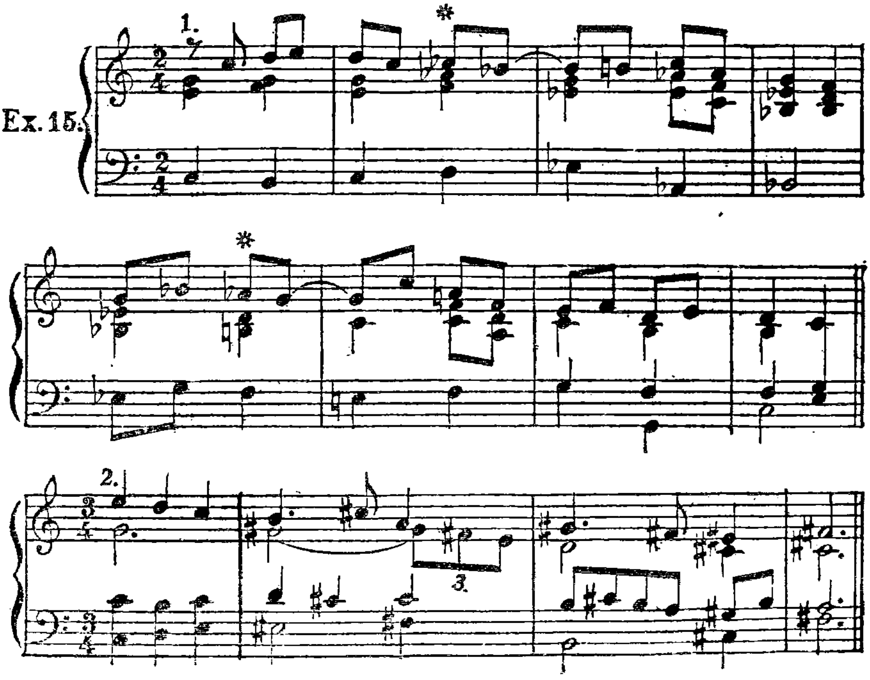
It is often more satisfactory to transform the vii°7° to V7 by resolving the chord-seventh of the former. For example: when modulating from C major to d minor thru the vii°7° of the latter key, allow the seventh of the vii°7° to resolve first; the following chord, being a V7, establishes the new key. See Ex. 14.

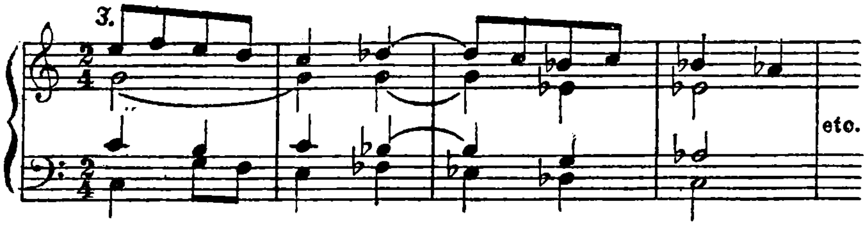
Ex. 14.



The following examples illustrate modulations to remote keys, employing vii°7°—V7 as the "pivotal" chords.

Ex. 15.

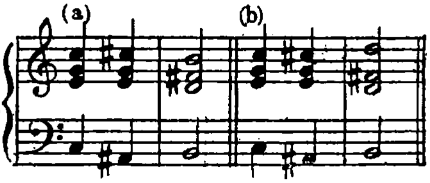




Original Work.

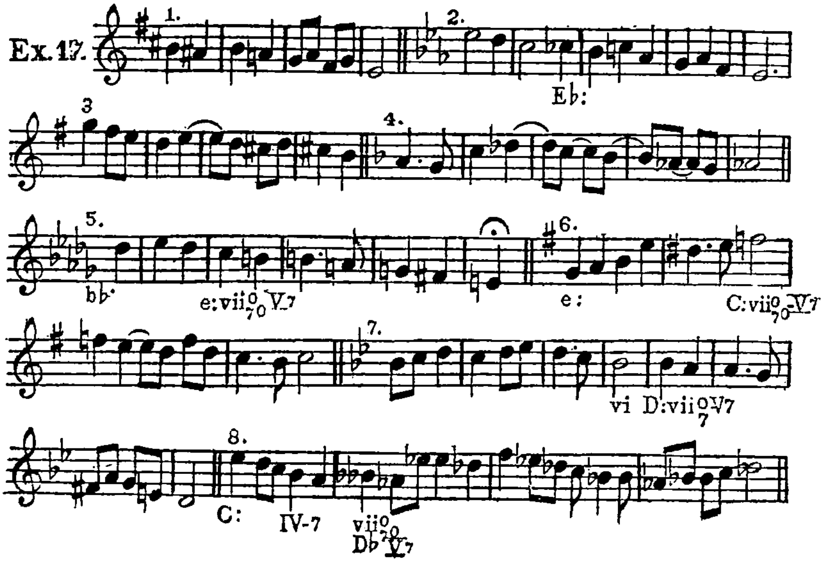
Write original four measure phrases and eight measure periods using vii$^{\circ}{}_{7^{\circ}}$ as the modulatory chord. When modulating to remote keys, care should be taken that the leading of voices is smooth. When progressing from tonic of the original key to the new vii$^{\circ}{}_{7^{\circ}}$ some of the voices will follow a chromatic melody line. In such cases the chromatic tones should follow their *natural tendency* in the old key until the new key is established. In Ex. 16, (b) is superior to (a).

Ex. 16.



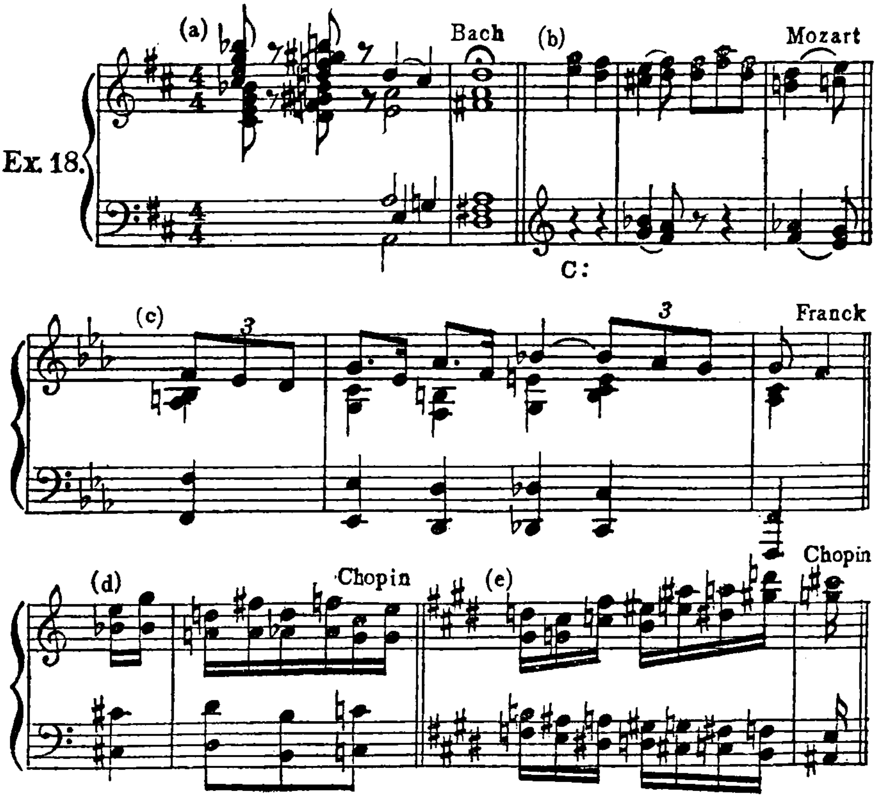
Melodies to Harmonize.

Ex. 17.



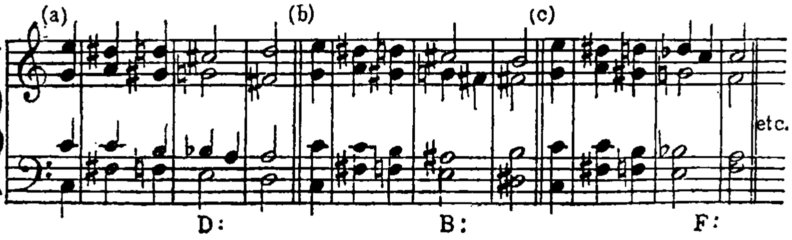
Sequences of $\text{vii}^{\circ}{}_{7^{\circ}}$—I are common, as are successive diminished seventh chords. Bach used such progressions often. His preludes, fugues, etc. abound in passages of diminished sevenths which foreshadow the brilliant passages in the works of Chopin and Liszt. See the d minor Prelude from Book I of the Well Tempered Clavichord. In Ex. 18 find the root of each diminished seventh chord; spell it and name the key in which it would be $\text{vii}^{\circ}{}_{7^{\circ}}$.

Ex. 18.



Interesting modulations can be invented by using several diminished seventh chords in succession, resolving the last one to any one of four keys. Ex. 19.

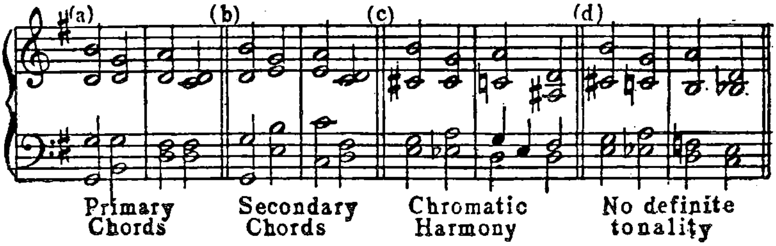
Ex. 19.



Chromatic Harmony—Introduction.

As stated in previous chapters a chromatic chord is one which contains one or more tones foreign to the scale. Diatonic harmony is usually more sturdy and impersonal, while chromatic harmony is more colorful and to a great extent represents a composer's personality. Depending on the chromatic tones chosen, chords become either brighter or more sombre. It is important at all times to think of chords from this angle and to note their effective use in masterworks. Ex. 20 shows a simple "bell motive" of four tones, harmonized first with simple diatonic chords; then with various types of chromatic chords.

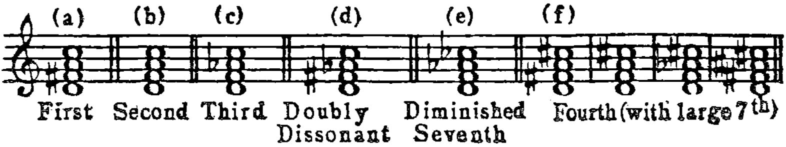
Ex.20



In order to understand modern music one should possess a thoro knowledge of chords in regard to their *structure*. Much music is written with no definite tonality. The meaning of such passages is clarified when they are regarded merely as a "pattern" of variously colored chords. With this in mind it is important to classify the various chord structures by "species" (type). The four types of triads have already been learned. Seventh chords can be classified as in Ex. 21.

Species of Seventh Chords.

Ex.21.



(a) First species: major triad with small seventh.
(b) Second species: minor triad with small seventh.
(c) Third species: diminished triad with small seventh.
(d) Doubly dissonant species: large third, plus diminished third, plus large third. Compare this with the first species.
(e) Diminished seventh species: all small thirds. The seventh is diminished.
(f) Fourth species: all four types of triads with large seventh. Many theorists do not regard these as real chords but as interval structures. Any one of the four sounds like a chord with a by-tone added.

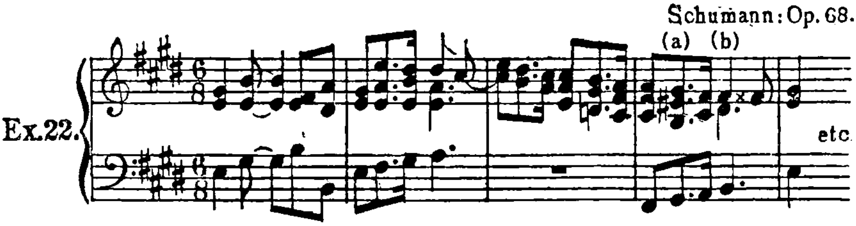
In the succeeding chapters the various chromatic chords will be discussed in regard to *species*. The student need not drill upon all types at once, but as new altered chords are learned they should be classified. Eventually the student should be able to spell any species of seventh chord quickly from all pitches, and to recognize them aurally.

Chapter III.

Chromatic Alterations of the Tonic and Dominant.

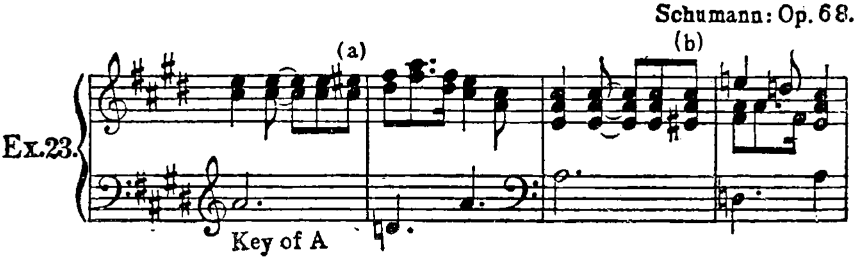
The tonic chord is seldom chromatically altered. In fact, if the root is altered the tone center of the key is lost. In Ex. 22 the chord at (a) can be considered a tonic with root sharped, but there is a decided feeling of modulation to f♯ minor. The altered dominant chord at (b) is common. In the latter what chord degree is altered? What type of triad is V with the chord-fifth sharped?

Ex.22.



In Ex. 23 what type of triad occurs at (a) and (b)? In what way is this triad similar to the dominant chord of Ex. 22?

Ex.23.

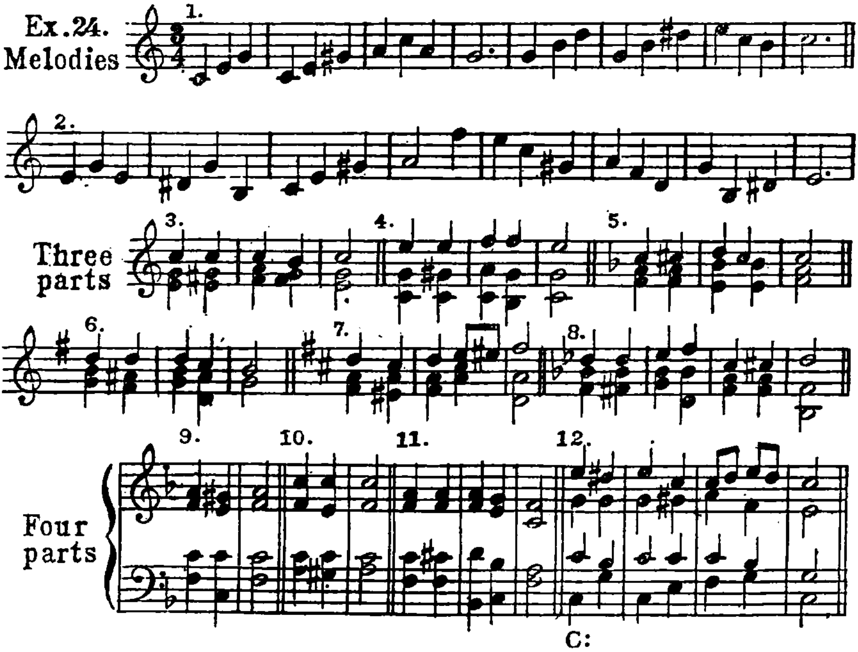


The tonic and dominant triads with chord-fifth sharped are both *augmented triads*. The figuring is I+ and V+. The V+ is heard more often than the I+. Listen for the V+ in the opening measures of "At Dawning" by Cadman. The chord is somewhat sentimental in quality and easily becomes commonplace when used too often.

The V+ usually resolves to I. The I+ usually resolves to IV or to a chord which includes the scale-6th, since the chromatic tone in I+ resolves to scale-6.

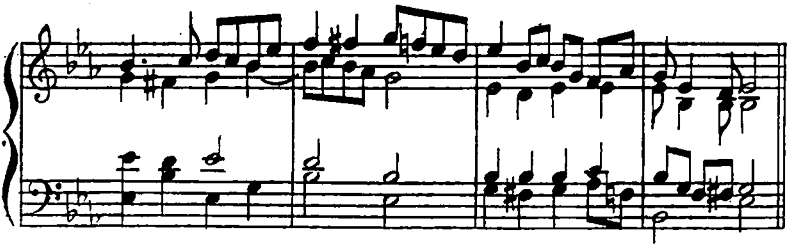
Sing the following patterns and memorize the sound of the altered chords. Play I+ and V+ while singing the melodies.

Ex.24.



The V+ includes ♯2 of the scale. This tone may occur in any voice when the triad is used. Ex. 25 shows the V+ with the chromatic tone in each of the four voices.

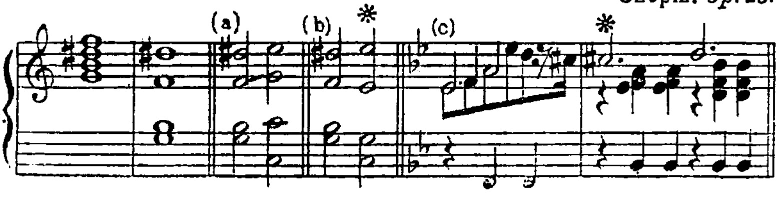
Ex.25.



When the 7th (fa) is added to V+ the parts must be so arranged that the chromatic tone (♯chord-5th or ♯2 of scale) is *above* the chord-7th as shown in Ex. 26. The chord may resolve either as shown at (a) or at (b). In one case the chord-7th resolves up, which is unusual. In the second case the third of the tonic is doubled. Either progression is found in the best music. The excerpt at (c) shows V7+ over a tonic pedal.

Chopin: *Op. 23.*

Ex.26.



Keyboard Practice.

1. Play the following groups in many keys:

$\text{I}\ \ \text{I+}\ \ \text{IV}\ \ \text{I};\ \ \overset{8}{\text{I}}\ \ \overset{8}{\text{I+}}\ \ \overset{5}{\text{IV}}\ \ \overset{3}{\underset{5}{\text{V}_7}}\ \ \text{I};\ \ \text{I}\ \ \text{V+}\ \ \text{I};\ \ \text{I}\ \ \text{V}_7\text{+}\ \ \text{I};\ \ \text{I}\ \ \underset{3}{\text{I}}\ \ \underset{5}{\text{V+}}\ \ \underset{3}{\text{I}}\ \ \underset{5}{\text{V}_7}\ \ \underset{8}{\text{V}_7}\ \ \text{I};$

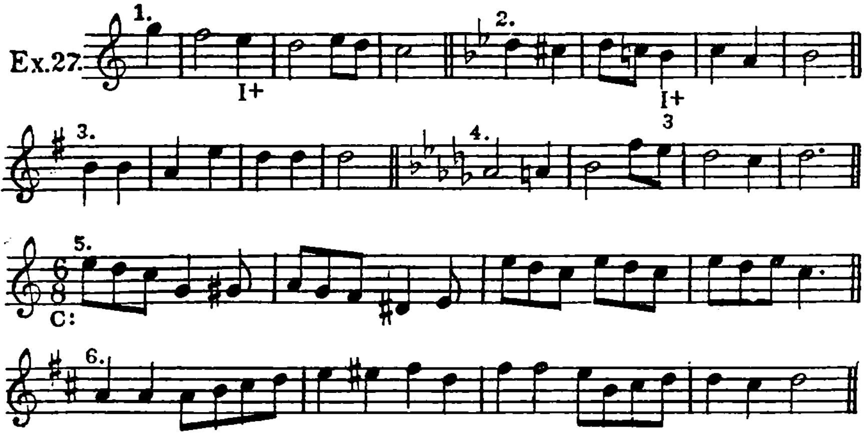
$\text{I}\ \Big|\ \text{I+}\ \ \text{IV}\ \Big|\ \underset{5}{\text{I}}\ \ \text{V+}\ \Big|\ \text{I}\ \Big\|$

2. Transpose the exercises of the singing drills to various keys.

Melodies to Harmonize.

Employ I+ and V+.

Ex.27.



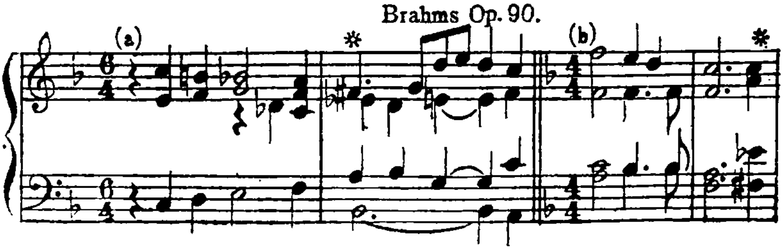
More Unusual Alterations.

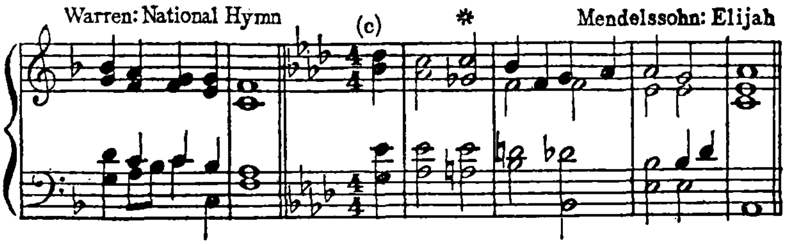
The tonic with small seventh ($\text{I}\flat_7$) has already been discussed in connection with the subdominant harmony. What species of seventh chord is $\text{I}\flat_7$? The resolution is almost always to IV or iv, and the progression suggests a modulation to the subdominant key, tho not necessarily so.

The tonic may appear with augmented root and small seventh (♯root and ♭7). See Ex. 28. In the Brahms excerpt the chromatic tones, ♯1 and ♭7, embellish the supertonic chord. The other examples illustrate the full chord, figured $\sharp\text{i}^{\circ}{}_{7^{\circ}}$. What species is this chord? Notice that its resolution is to ii.

Brahms Op. 90.

Ex.28.





Find the various altered chords previously discussed in the following well-known melodies. These melodies are to be found in the Golden Book of Favorite Songs (Hall & McCreary Co.), Twice 55 Community Songs (C. C. Birchard) and Senior Laurel Songs (C. C. Birchard).

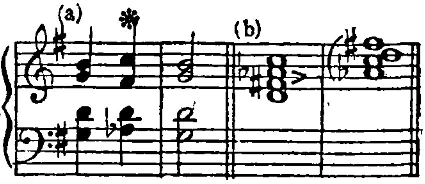
1. Love's Old Sweet Song	$I\flat_7$
2. American Hymn	$\sharp i^{\circ}_{7^{\circ}}$
3. Softly Now the Light of Day	$\sharp i^{\circ}_{7^{\circ}}$
4. Integer Vitae	I+
5. Songs of Araby	I+
6. A Hope Carol	I+, V+, $I\flat_7$.

The $\underset{\flat 5}{V_7}$ and $\sharp v^{\circ}_{7^{\circ}}$

The dominant-seventh chord with ♭5th is rare. It is used in *second inversion* as shown in Ex. 29. The resolution is to the tonic. What species is this chord? Refer to the Introduction to Chromatic Harmony. Referring to (b) of Ex. 29 note that the intervals of $\underset{\flat 5}{V^7}$ in root position are as follows: large third—diminished third—large third. When the chord is inverted the diminished-3rd becomes an augmented-6th. Because of this characteristic interval the chord is often termed an *augmented sixth chord*. There will be further discussion of the augmented-6th chord in a later chapter.

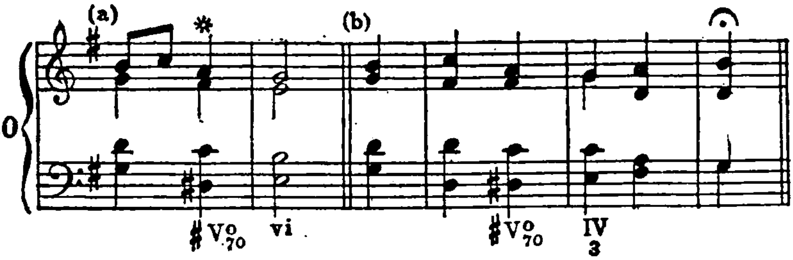
Spell $\underset{\flat 5}{V_7}$ in key and also from any pitch by interval as: Large 3rd—Diminished 3rd—Large 3rd.

Ex. 29.



The dominant seventh chord with augmented root (♯root) has been discussed in connection with the submediant harmony. Since the ♯root of V_7 resolves to scale-6, this form of the altered V_7 may resolve to any chord which includes the scale-6th. See Ex. 30. The chord is figured $\sharp v^{\circ}_{7^{\circ}}$. What species is it? The ♯root is usually found in the bass and the resolution is almost always to vi. The progression suggests a modulation to the relative minor.

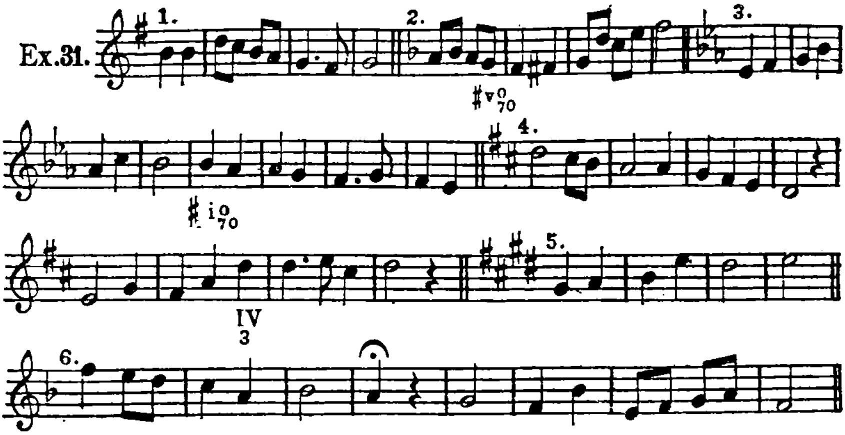
Ex.30



Melodies to Harmonize.

The following melodies include I♭7, ♯i°7°, ♯v°7° and $V^{7}_{\flat 5}$. In No. 6 use ♯v°7° and $V^{7}_{\flat 5}$, employing the chromatic tones to give movement when the soprano is static.

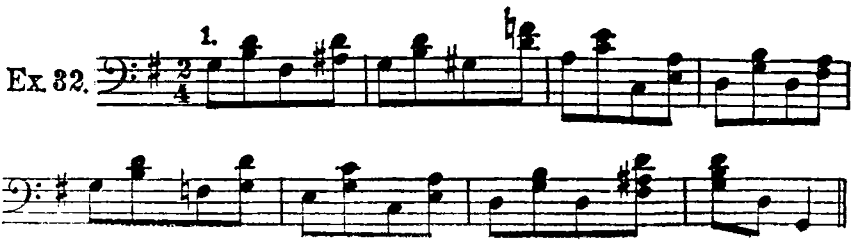
Ex.31.

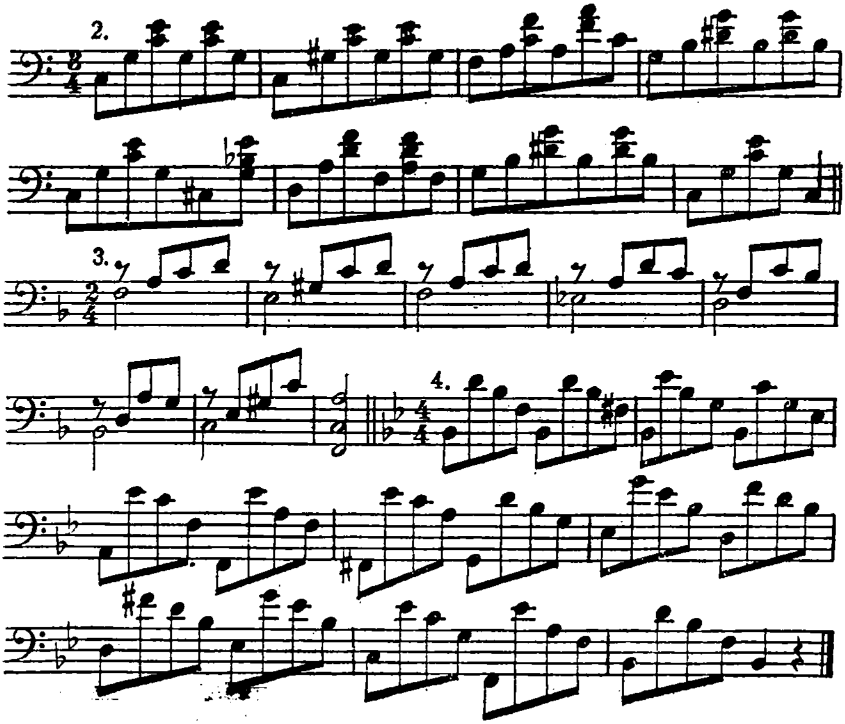


Creative Work.

Sing and write melodies over the following accompaniments. In general the chromatic tones should follow their natural tendency except when a skip is made *in the same chord.*

Ex. 32.





Summary.

The most common altered forms of tonic and dominant harmony are the augmented triads, $I+$ and $V+$.

When the seventh (fa) is added to the $V+$ it is used *below* the chromatic tone.

There are two diminished-7th chords, $\sharp i^{\circ}{}_{7^{\circ}}$ and $\sharp v^{\circ}{}_{7^{\circ}}$.

There are two forms of the V_7 which include the interval of a diminished third. The latter is inverted and becomes an augmented sixth.

The V_7 with ♭5th is used in *second inversion* $(\underset{\flat 5}{V_7})$.

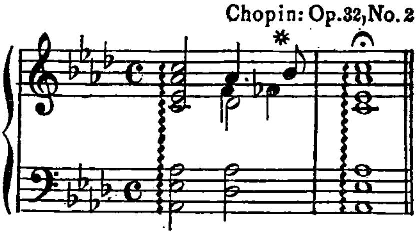
The $I_{\flat 7}$ suggests a modulation to the subdominant key.

The $\sharp i^{\circ}{}_{7^{\circ}}$ suggests a modulation to the supertonic key.

Chapter IV.

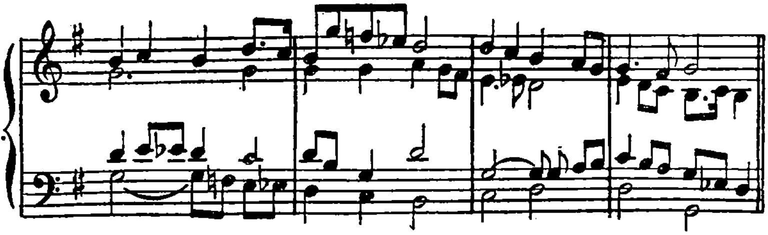
Alterations of the Subdominant.

Ex. 33.



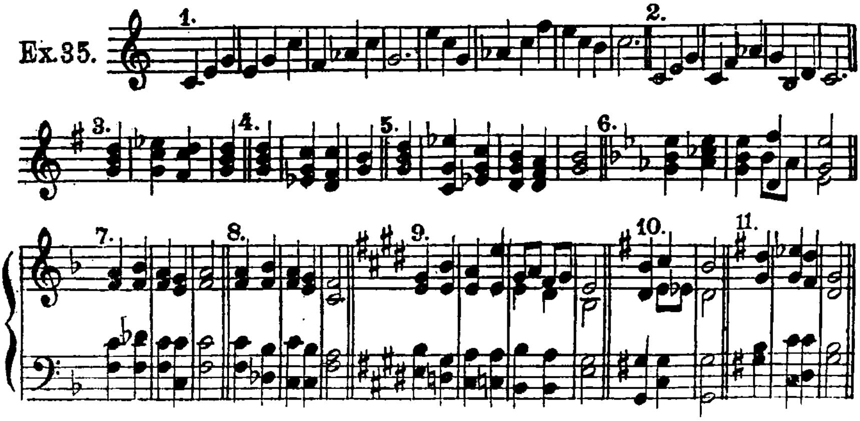
The subdominant is altered more frequently than the tonic and dominant harmonies. The most common alteration of the subdominant in the major mode is made by flatting the chord-3rd. What scale degree is this? See Ex. 33. The minor subdominant is marked iv or IV♭3. It is often said that the iv is "borrowed" from the tonic minor. Several examples are included in the Analysis of Chapter XIII of Part I. The chromatic tone may be in any voice as shown in Ex. 34.

Ex. 34.



Sing the following patterns and memorize the sound of iv.

Ex. 35.



Keyboard Practice.

1. Play the following groups in many keys:

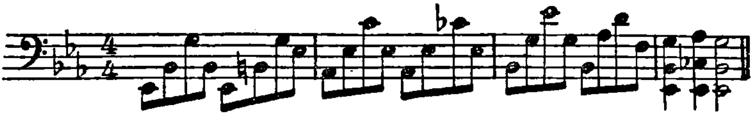
I iv I ; I iv V$_7$ I; I iv $\underset{5}{\text{I}}$ V^7 I; I $\underset{\flat 7}{\text{I}}$ $\underset{3}{\text{iv}}$ $\underset{5}{\text{I}}$ V$_7$ I; etc.

2. Combine the progressions including iv with the chromatic chords of Chapter III.

I V+ I iv I ; I I+ IV iv $\underset{5}{\text{I}}$ V$_7$ I; I ♯v°$_{7^\circ}$ vi IV iv etc.

3. Arrange chord progressions including iv in accompaniment forms as in Ex. 36.

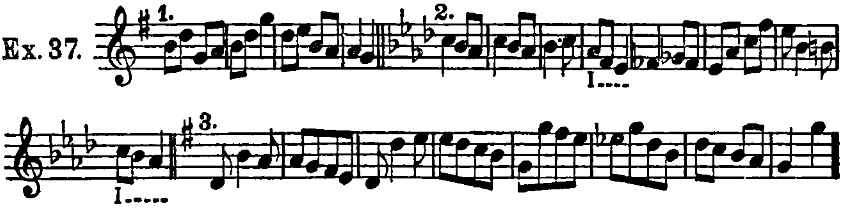
Ex. 36.



Melodies including iv.

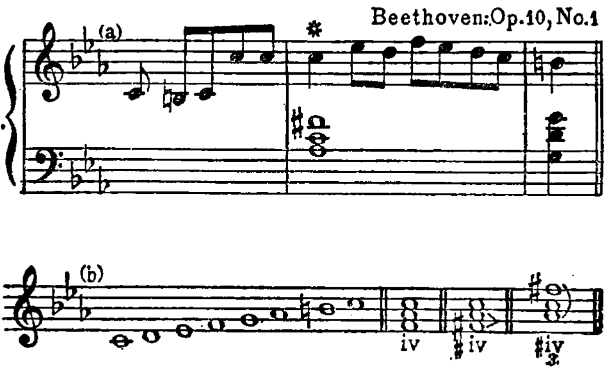
In No. 2 try I+ in the second measure. It is also possible to use iv in the second measure, considering the first note an appoggiatura.

Ex. 37.



The Augmented-Sixth Chord on ♯4.

Ex.38.



Analyze the chord at (*) of Ex. 38. It is the iv with augmented root (♯root). Its location in scale is shown at (b). The interval from root to third is a *diminished third.* When the chord is in first inversion the diminished 3rd becomes an augmented 6th. Because of this characteristic interval the ♯iv$_3$ is often called an *augmented-sixth chord.* When it is used in the major mode, two alterations are necessary, ♯ root and ♭ third.

Drills:

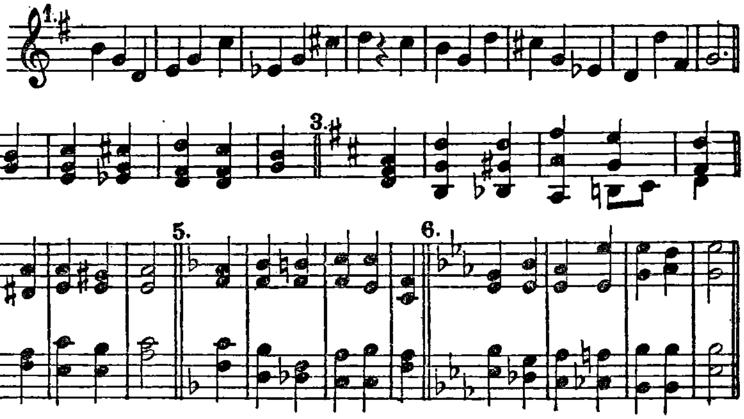
1. Spell minor triads from various pitches and then spell a second time with ♯ root as: d-f-a; d♯-f-a. This is ♯iv in *a* minor.

2. Spell the augmented-sixth chord in its correct inversion on ♯4 of every minor key.

3. Name the scale chromatics which are necessary to transform a IV chord to the augmented-6th form. Do this in every major key.

Sing the following patterns and memorize the sound of the ♯iv chord.

Ex.39.

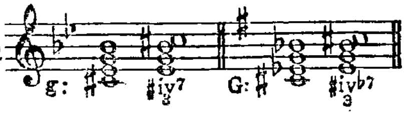


Resolution and Doubling:

Note in both the singing drills and the excerpts for analysis that the augmented-6th chord on ♯4 resolves to either I$_5$ or V and that the chord-5th is doubled. The latter is the tonic of the key and is therefore the best tone to double.

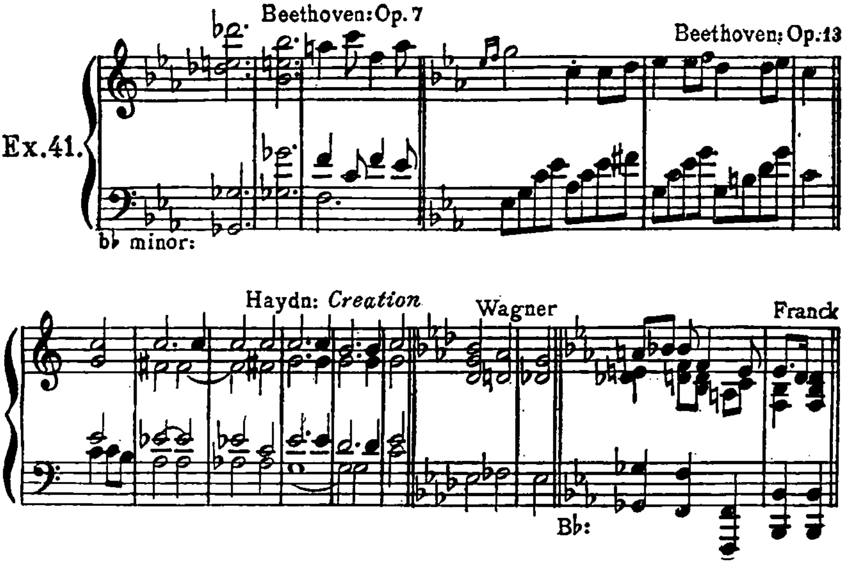
In the minor mode a seventh may be added to ♯iv. This is the scale-3rd. There is no new problem in ♯iv7. The resolution is the same as in the case of the triad, and no voice is doubled in ordinary four-part writing. In the major mode the ♯iv with the seventh (mi) added is not especially pleasing. Therefore, the chord as it appears in the minor mode is "borrowed" for use in the major mode. There will then be *three* alterations, ♯root, ♭3rd and ♭7th. See Ex. 40.

Ex.40.



Before harmonizing the melodies of Ex. 42, transpose the three and four part exercises of the singing drills to various keys and analyze the following excerpts:

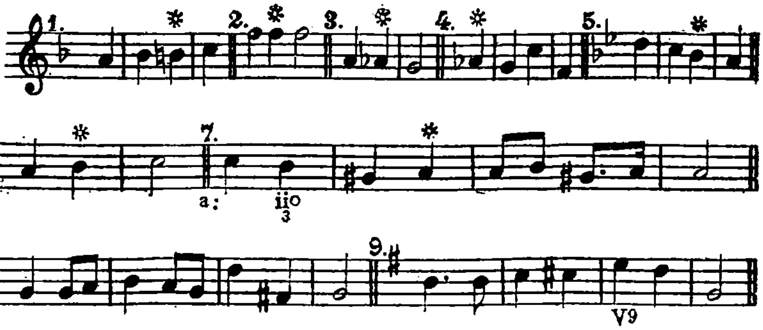
Ex.41.



Melodies to Harmonize.

Employ the augmented-6th form of iv and IV in these melodies. In several the $\sharp iv7_{3}$ is possible. The starred notes indicate where these chords can be used.

Ex. 42.

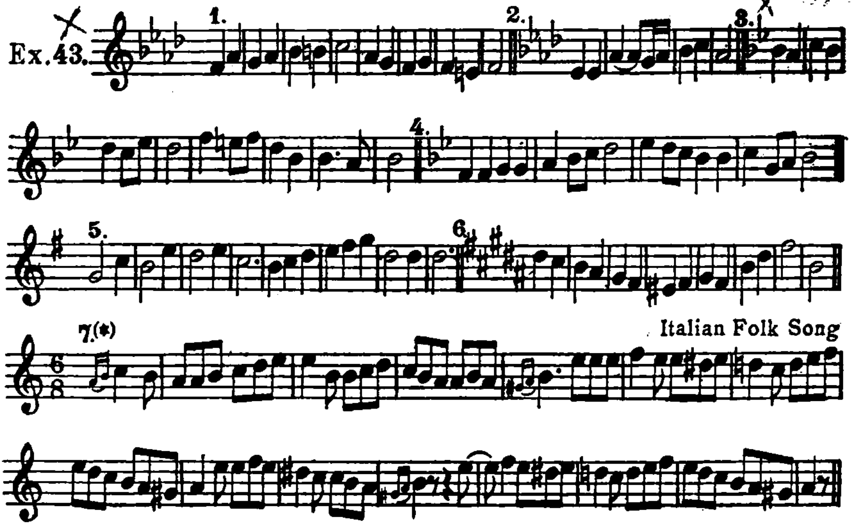


One might harmonize the longer melodies of Ex. 43 in the usual way, then see where the augmented-6th form of the subdominant would be possible or better. For example: No. 2 might be harmonized I-V-vi-IV etc. or I-V-vi-$\sharp iv_{3}$ etc., the latter making the approach to cadence in a contrary direction.

The augmented-6th form of subdominant harmony is useful in approaching cadence by contrary motion, also to add power to the passage. It is a common way of expressing the heroic element. Wagner employed such effects in "Lohengrin."

In No. 5 it is necessary to have a tripled 5th in the I_5 chord of measure seven. In No. 6, avoid a middle cadence by using I_5 as a passing chord on the weak beat of measure four.

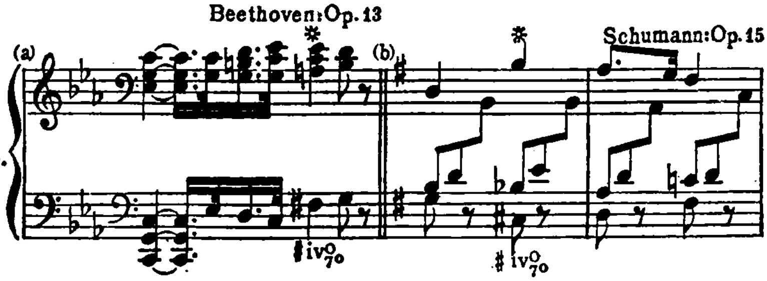
Ex.43.



(*) In No. 7 employ a simple piano accompaniment rather than four part harmony.

Other Forms of the Subdominant.

Ex.44.

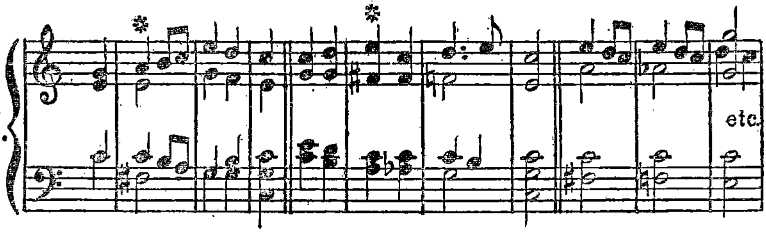


In Example 44 the diminished seventh form of the subdominant harmony is shown. At (a) the chord is the iv_7 with ♯root and ♯3rd. At (b) the chord is IV_7 with ♯root and ♭7th. In both major and minor modes this form of the subdominant leads to dominant, sometimes I_5 or i_5. The figuring is $\sharp\text{iv}^{\circ}{}_{7^{\circ}}$ for both modes. What scale chromatics are involved?

Spell diminished-7th chords on various pitches and place them in key as ♯iv°7°. For example: d♯-f♯-a-c is ♯iv°7° in A major and *a* minor.

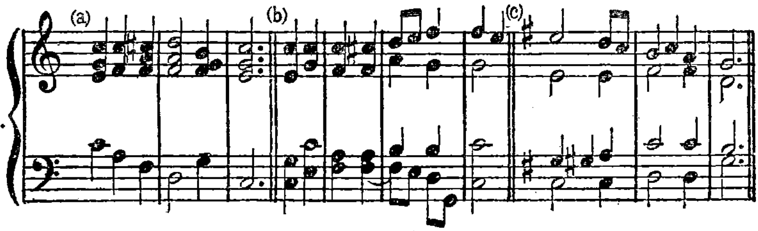
Where have you found diminished-7ths in previous lessons?

Ex. 45.



The subdominant-7th chord in the major mode appears with ♯ root. This is a third species chord and may be used in any inversion. It sounds like the major II^7 with a bytone. See Ex. 45.

Ex. 46.



The subdominant of the major mode with sharped fifth is an augmented triad. Where have you found augmented triads in previous lessons? Since the chromatic tone (♯1 of the scale) resolves to scale 2 (re), the IV+ may progress to any chord which includes the scale-2nd. See Ex. 46. The chord is rarely used. It sounds like an embellishment of the supertonic as illustrated at (c).

Summary.

The iv (IV♭3) is used in any inversion and is the most common of the subdominant alterations.

In the melodic minor scale the subdominant is a major triad. See No. 6, Ex. 163 of Part I. Find the progression, IV-i, in the last eight measures of the Siciliana from "Cavalleria Rusticana".

The augmented-sixth form of the subdominant occurs in triad form, also with the seventh.

The diminished-7th form (♯iv°7°) is used in both modes.

The IV_7 of the major mode with ♯ root is a third species seventh and progresses to $\frac{I}{5}$ or V.

The augmented triad on the subdominant (IV+) is seldom employed.

Chapter V.

Alterations of the Supertonic.

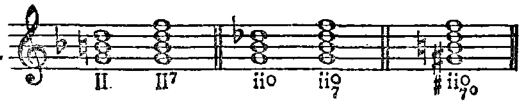
The supertonic has the greatest number of chromatic forms; i. e., more chromatic alterations are possible than in the case of any of the other harmonies. The three most common forms are:

1. Supertonic with sharp third. (II or II$_7$). This chord has been discussed in Part I, Chapter XIV. It is a first species seventh. It may be used in the minor mode also. When II$_7$ is used in the harmonic minor scale, what two scale chromatics appear?

2. Supertonic with flat fifth (ii° or ii°$_7$). This chord was also discussed in Part I, Chapter XIV. It is a third species seventh and is diatonic in the minor mode, chromatic in the major mode.

3. Supertonic seventh with sharp root and sharp third (♯ii°$_{7°}$). This is a diminished seventh chord. Refer to Ex. 47. What scale chromatics are found in ♯ii°$_{7°}$? Since ♯2 is not a possible chromatic tone in the minor mode, the diminished seventh form of the supertonic cannot be used in that mode.

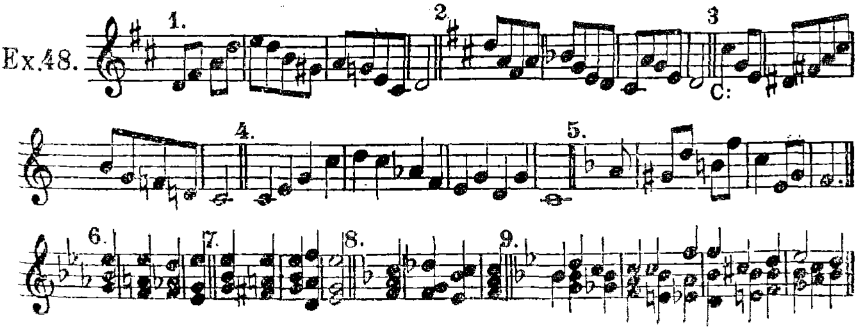
Ex. 47.

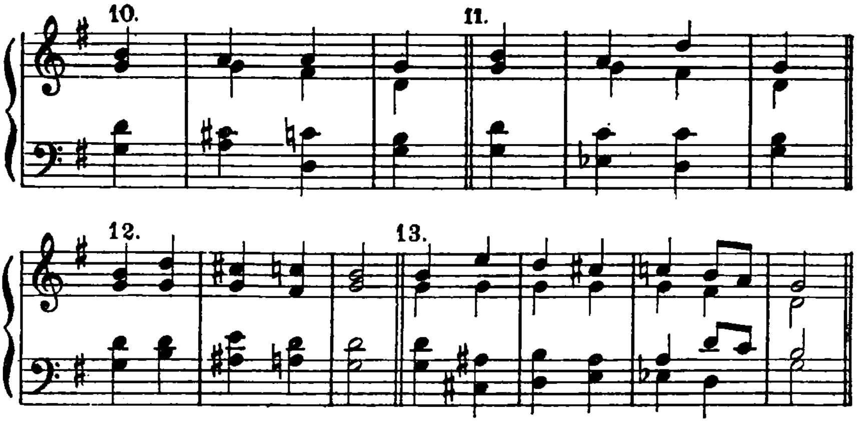


Singing Drills.

Sing the following melodies, three-part and four-part exercises, concentrating upon the *quality* of the supertonic chords. The II$_7$ is bright, the ii°$_7$ more sombre and the ♯ii°$_{7°}$ somewhat vague. The latter chord, being constructed of intervals which are all similar in sound, is less definite in color than the other forms.

Ex. 48.





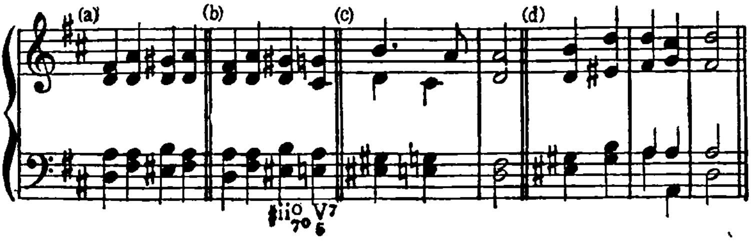
Analysis.

Find the chromatic forms of the supertonic harmony in the following songs:

1. How Can I Leave Thee - - - - - II_7
2. All Through the Night - - - - - - - II_7
3. Love's Old Sweet Song - - - - - - - II_7 (refrain)
4. My Bonnie Lies Over the Ocean - - - II (in the chorus)
5. Stars of the Summer Night - - - - $\sharp\text{ii}^{\circ}{}_{7^{\circ}}$
6. Softly Now the Light of Day - - - - $\sharp\text{ii}^{\circ}{}_{7^{\circ}}$
7. Sweet and Low - - - - - - - - - - $\sharp\text{ii}^{\circ}{}_{7^{\circ}}$
8. Good Night Beloved (Pinsuti) - - - - $\underset{7}{\text{ii}^{\circ}{}_7}$ (opening of 2nd phrase)

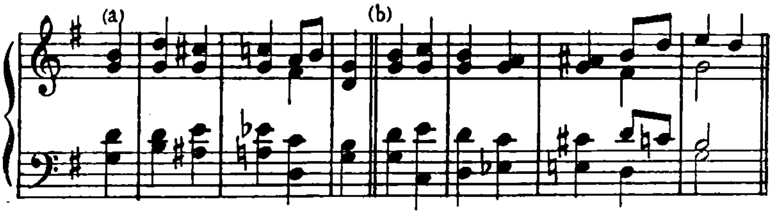
The II_7, $\text{ii}^{\circ}{}_7$ and $\sharp\text{ii}^{\circ}{}_{7^{\circ}}$ are used in any inversion. They progress to dominant or tonic. The chromatic tones usually follow their natural tendency. When $\sharp\text{ii}^{\circ}{}_{7^{\circ}}$ progresses to V or V_7 the chromatic tones of the former often move stepwise and in the opposite direction to their natural tendency. Refer to Ex. 49. The chromatic tones are seldom left by leap *except in the same chord* (d).

Ex. 49.



The various forms of the supertonic may be used consecutively as shown in Ex. 50. In such cases the chromatic tones do not resolve but progress stepwise.

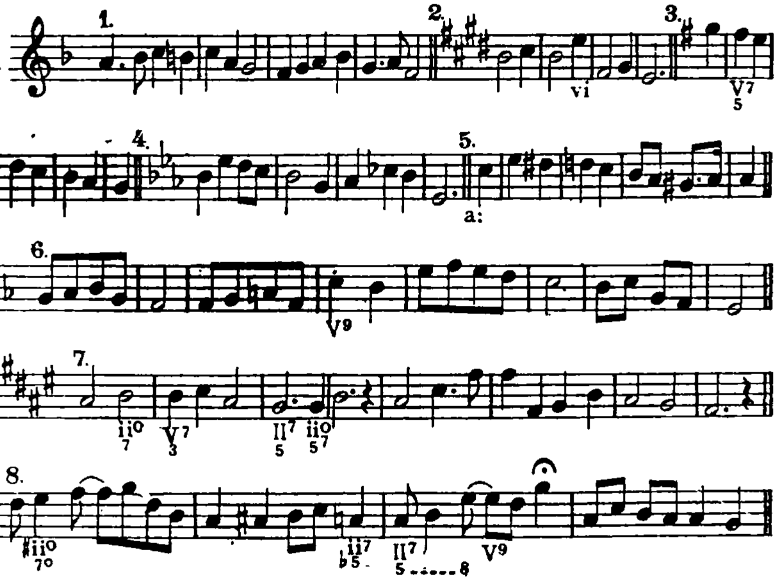
Ex.50.



Melodies to Harmonize.

In the following melodies employ the three forms of the supertonic harmony which have been discussed. In every melody but Nos. 3 and 5 it is possible to use two different forms. Employ $\sharp\mathrm{ii}^{\circ}{}_{7^{\circ}}$ in No. 3.

Ex.51.



Keyboard Practice.

1. Play the following chord progressions in four part harmony:

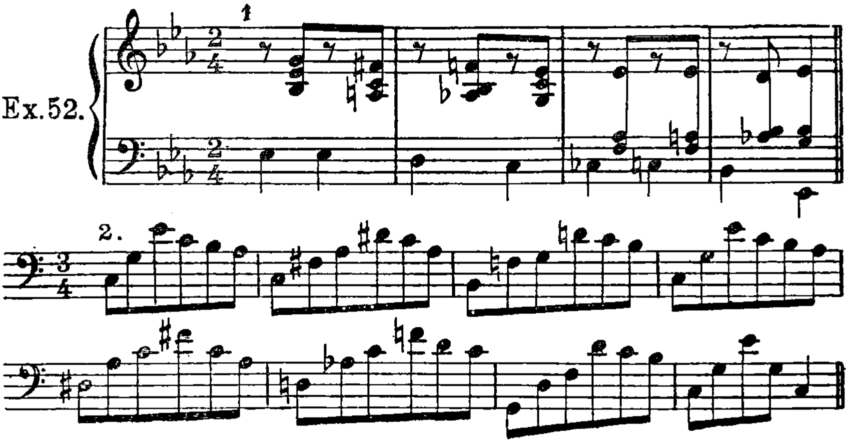
I $\underset{3}{\mathrm{I}}$ $\sharp\mathrm{ii}^{\circ}{}_{7^{\circ}}$ $\underset{3}{\mathrm{I}}$ IV $\underset{5}{\mathrm{I}}$ V_7 I   I $\underset{3}{\mathrm{II}_7}$ $\underset{3}{\sharp\mathrm{ii}^{\circ}{}_{7^{\circ}}}$ $\underset{5}{\mathrm{I}}$ V I
I V_7 vi $\underset{5}{\sharp\mathrm{ii}^{\circ}{}_{7^{\circ}}}$ $\underset{5}{\mathrm{I}}$ V I   I vi $\underset{\flat 5}{\mathrm{ii}^{\circ}{}_7}$ V_7 I
I $\underset{3}{\mathrm{ii}_7}$ $\underset{3}{\mathrm{II}_7}$ V I   I $\underset{3}{\mathrm{V}}$ I ii°_7 V I   i iv $\underset{3}{\mathrm{II}_7}$ V i

2. Transpose the exercises of the singing drills.

Creative Work.

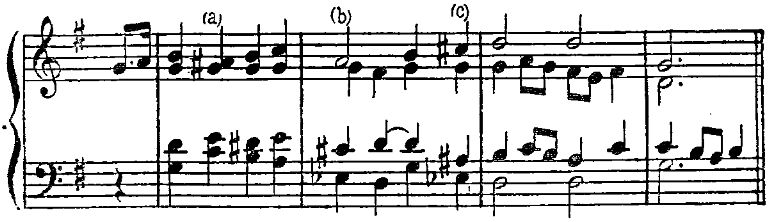
Sing and write original melodies over the following accompaniment forms. Invent original accompaniments from the chord progressions outlined in the keyboard practice.

Ex.52.



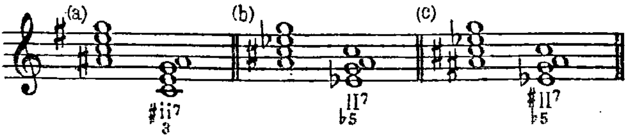
Augmented-Sixth forms of the Supertonic.

Ex. 53.



Play Ex. 53 and note the supertonic chords marked (a), (b), (c). Spell these chords in root position and refer to Ex. 54. All three forms contain the interval of a diminished third. As stated in previous chapters, the diminished third is usually inverted and becomes an augmented 6th.

Ex. 54.



(a) The supertonic-7th with sharp root. This chord is usually used in first inversion as shown at (a) of Ex. 54 and is figured $\sharp\mathrm{ii}_{\substack{7\\3}}$. It resolves either to iii, III or to I. Since the root is #2 of the scale, this form is not possible in the minor mode.

(b) The supertonic-7th with sharp third and flat fifth is used in second inversion and is the doubly-dissonant species. See (b). It progresses to V or I_5, and is used in both modes. In the minor mode but one chromatic alteration is necessary, the #3rd (#4 of the scale). The figuring is $\mathrm{II}_{\substack{7\\5}}$ in the minor mode, and $\mathrm{II}_{\substack{7\\\flat 5}}$ in the major.

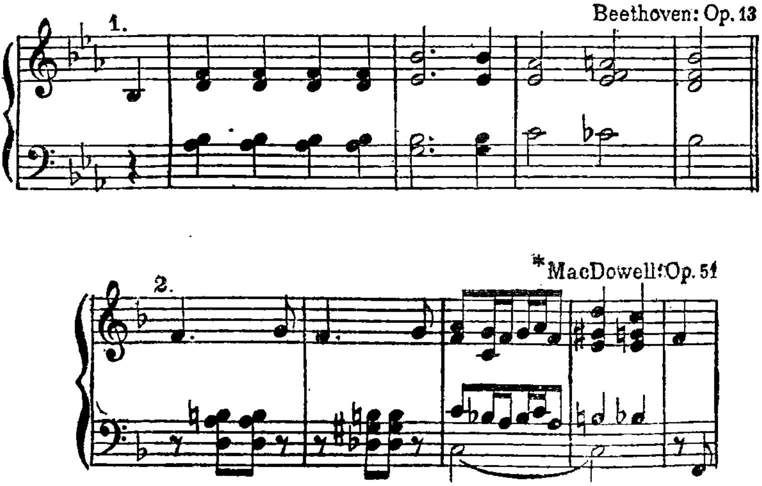
(c) The supertonic-7th with sharp root, sharp third and flat fifth can be used in any position or inversion, but it is more often found in the second inversion as shown at (c). It progresses to I or V. The figuring is $\sharp\mathrm{II}_{\substack{7\\\flat 5}}$.

All three of the above chord forms are called augmented-6th chords when the interval of an augmented-6th is present. The chords at (a) and (c) *sound* like V_7 chords (first species). The form at (b) is doubly-dissonant species.

Analysis.

In the following excerpts find the augmented-6th forms of the supertonic harmony; spell the chords and identify them as sounding like a V_7, or a doubly-dissonant species. Note the resolution of voices. Sometimes only one tone of the augmented-6th resolves, the other progressing irregularly. If one of the assertive tones resolves, the ear is satisfied.

Ex. 55.



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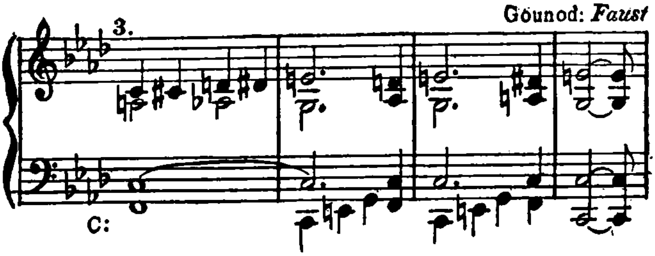
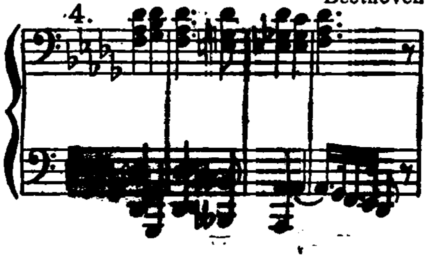
* By permission of the publisher, Arthur Schmidt.

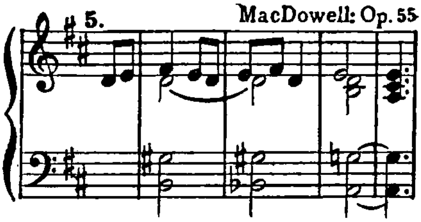
Gounod: *Faust*



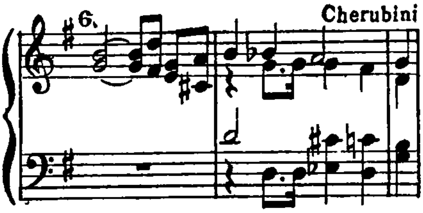
Beethoven



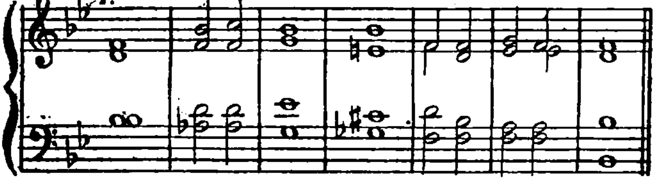
MacDowell: Op. 55



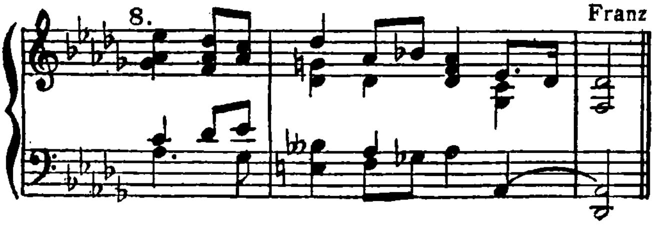
Cherubini



Beethoven



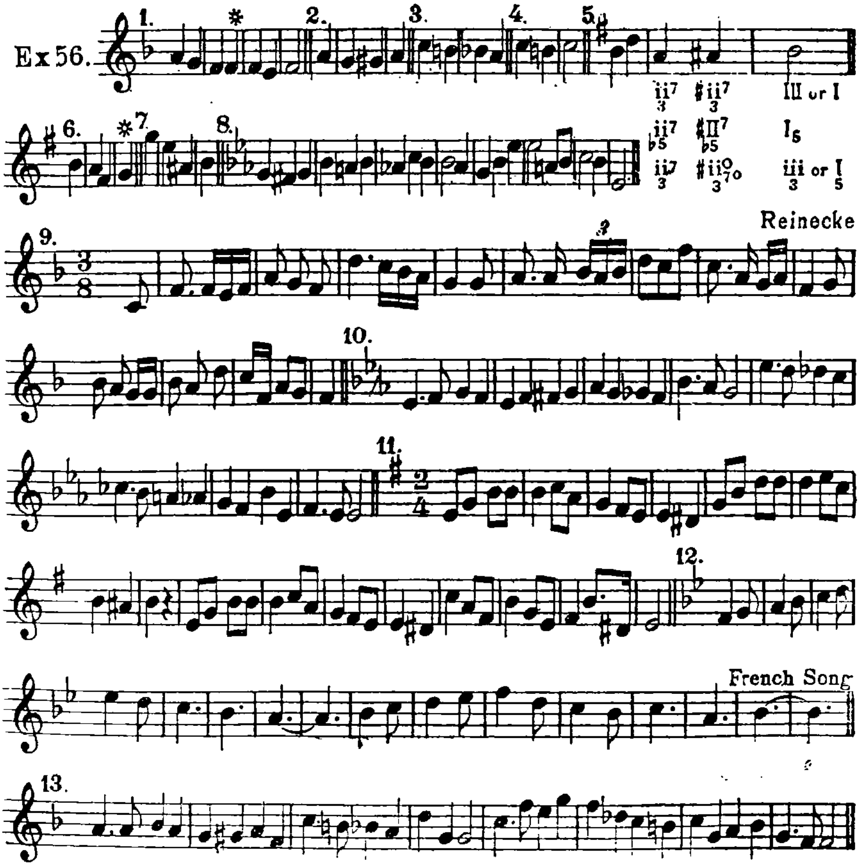
Franz



Melodies to Harmonize.

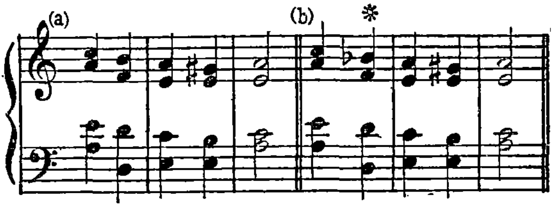
In the shorter melodies, Nos. 1 to 7, different forms of the supertonic may be employed. For example: No. 5 may be harmonized in at least three different ways, as indicated. In the longer melodies find the chromatic tones, spell all possible chords which include those chromatics and choose the most effective chord, considering its rhythmic position in the phrase. For example: in No. 13 the g♯ in measure two might be harmonized with V+, $\sharp ii^{\circ}7^{\circ}$ or $\sharp ii7_{3}$ to III. The latter is perhaps too suggestive of a modulation and would be preferable later rather than so early. The g♯ might also be harmonized with the Augmented-6th form ($\sharp II7_{\flat 5}$) but this would lead to I_{5} and a cadence where the rhythm demands continuity. Another example: in No. 11 the cadence in measures 7-8 might be harmonized in G major as V+-I, or in e minor as $\sharp iv7_{3}$-V. The first harmonization is not as strong as the second and not as much in keeping with the spirit of the melody. Discussion, as in the preceding examples, is of great importance and value in the class work in harmony.

Ex 56.



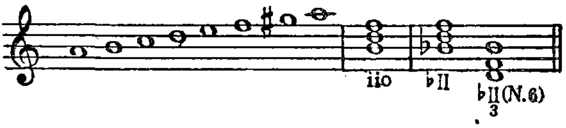
The Neapolitan-Sixth Chord.

Ex.57.



Play Ex. 57. Note the altered chord at (b). What is the root? What type of triad? In which inversion? The first inversion of a major triad built on flat two of the scale is often called the *Neapolitan-Sixth Chord.* This name is of no great importance as it is not descriptive of the chord. In the minor mode only one alteration of the ii° is necessary, the ♭root. In the major mode two chromatics occur, ♭root and ♭5th. The figuring is $\flat\mathrm{II}_{3}$ in both modes. Sometimes the chord is marked N6.

Ex.58.

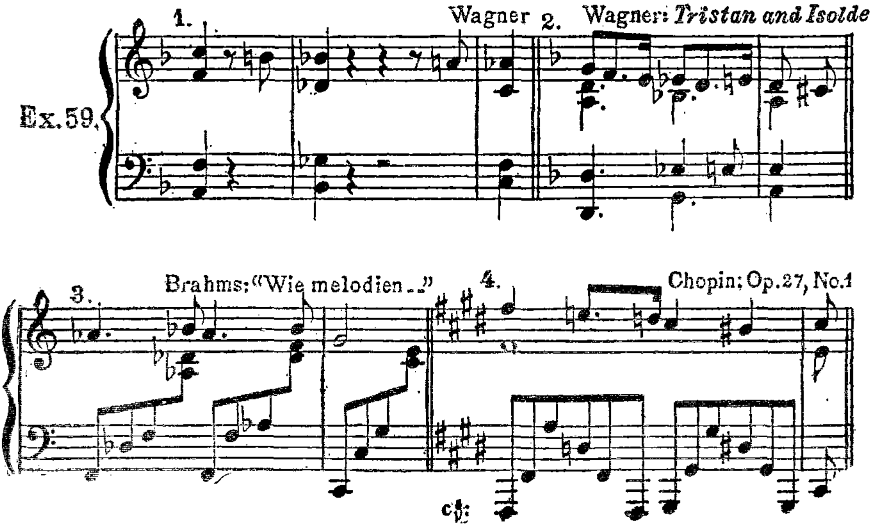


The N6 ($\flat\mathrm{II}_{3}$) usually progresses to V or I_{5} but it is free in its progression. Ordinarily the *chord third is doubled* since it is a primary tone (scale 4). However, the root or fifth may be doubled. The ♭II chord is rarely seen in root position or second inversion. Refer to Chapter XII for examples.

Analysis.

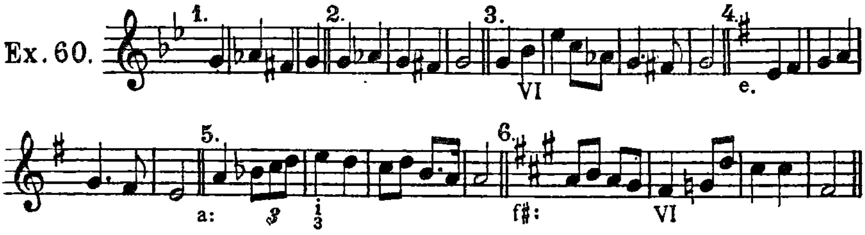
In the following, spell the ♭II chord and note the doubling, also the movement of the voices.

Ex.59.



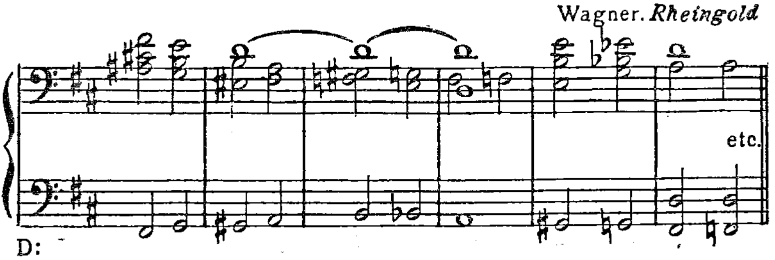
Melodies to Harmonize.

Ex. 60.



The following is an excellent summary of the various chromatic forms of the supertonic:

Ex. 61.



The well known melody of L. M. Gottschalk (page 64 of The Golden Book of Favorite Songs) includes three forms of the supertonic.

Summary.

The seventh of ii7 (do) is not altered.

The chord-third is never flatted; the chord-fifth is rarely sharped.

Answer the following questions by writing the chords on the staff. This will summarize all the chromatic forms of the supertonic.

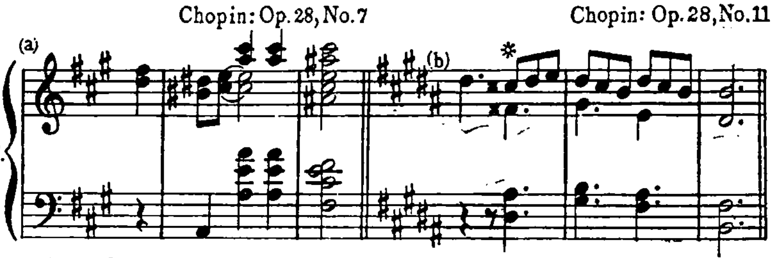
1. Which forms include one sharp? Two sharps?
2. Which form in the major mode includes one flat? Two flats?
3. Which form in the minor mode includes one flat?
4. Which form includes one sharp and one flat?
5. Which form has three alterations?
6. Which forms sound like V7?
7. Which forms contain the interval of an augmented-6th?

Chapter VI.

Alterations of the Submediant and Mediant.

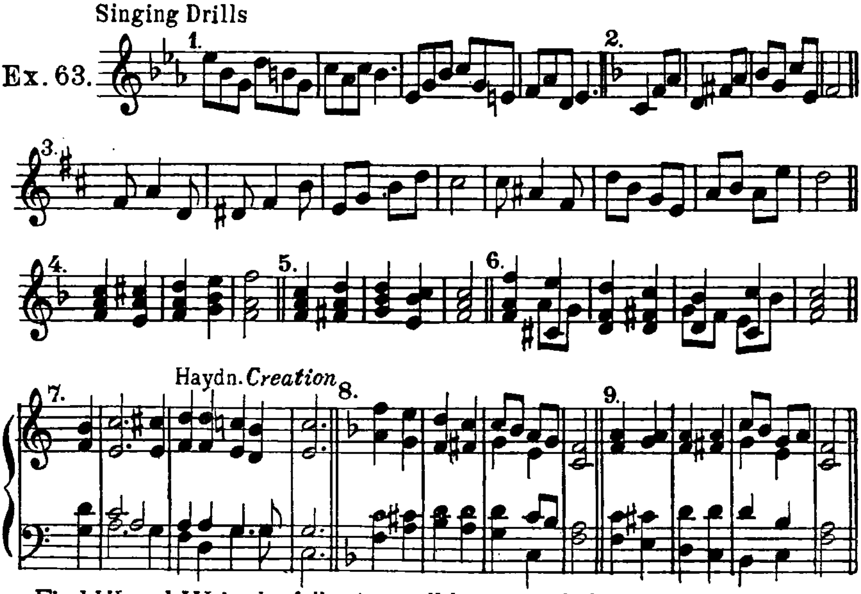
There are fewer alterations of vi and iii than in the case of ii. The most common chromatic form of both vi and iii is the major form, VI and III, which were discussed in Chapters XV and XVI of Part I. Ex. 62 shows good examples of these chords. What scale chromatic occurs in VI? In III?

Ex. 62.



The major submediant (VI) usually resolves to ii. The major mediant (III) usually resolves to vi or IV. Both chords appear as triads or as seventh chords. What species is VI7; III7?

Ex. 63.



Find VI and III in the following well known melodies:

1 Third phrase of "Salut d'Amour" (Elgar).
2 First and third phrases of "Hope Carol" (David Stanley Smith).
3 Second and last phrases of "Crossing the Bar" (Barnby).
4 Third phrase of "Sleep, Noble Hearts" (Mendelssohn).
5 Last phrase of "Farewell to the Forest" (Mendelssohn).
6 First phrase of "Songs of Araby" (Clay).
7 Use of III in "Kye Song of Saint Bride" (Clokey).

The chord-3rd, being a chromatic tone in both VI and III, *should not be doubled*. When III7 progresses to IV it is necessary to double the third of the latter chord. See No. 8 of the singing drills.

Keyboard Practice.

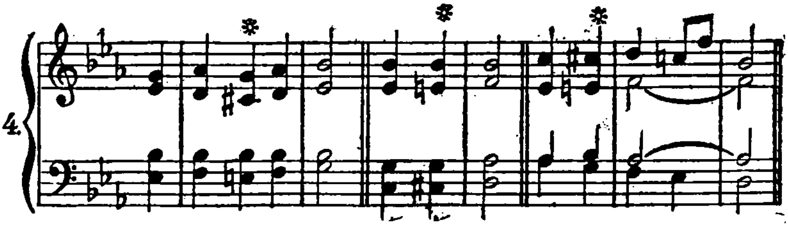
1. Play the following groups in four part style:
   I vi $\underset{7}{\text{VI}}$ $\underset{3}{\text{ii}}$ V_7 I   I III_7 IV ii_7 V_7 I   I $\underset{5}{\text{III}_7}$ vi IV $\underset{5}{\text{I}}$ V_7 I
   I $\underset{3}{\text{VI}_7}$ ii $\underset{3}{\text{ii}}$ $\underset{5}{\text{I}}$ V_7 I
2. Transpose the exercises of the singing drills.

Other Forms of the Submediant and Mediant.

The $\sharp\,\text{vi}^{\circ}{}_{7^{\circ}}$.

A rather common form of the submediant is shown in Ex. 64. In this form the vi_7 appears with ♯ root and ♯ third. What species is this chord? The $\sharp\text{vi}^{\circ}{}_{7^{\circ}}$ embellishes the V_7 chord. It may be used in any inversion. Notice the progression of the chromatic tones.

Ex. 64.



Find the $\sharp\text{vi}^{\circ}{}_{7^{\circ}}$ in the following melodies:

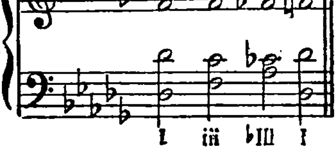
1. First phrase of "America the Beautiful", tune "Materna" (Ward).
2. First phrase of "How Can I Leave Thee".

Major Triads—♭VI and ♭III.

A major triad built on ♭6 is often used in the major mode. This chord, ♭VI, is borrowed from the tonic minor. The progression was discussed in Chapter XV of Part I. See Nos. 4 and 12 of Ex. 193.

A major triad on ♭3 of the major mode is rare. Refer to Ex. 200 of Part I. The chord progression shown in Ex. 65 is employed by Debussy in "Clair de lune". The ♭III chord is later written e-g♯-b because of a modulation to E major.

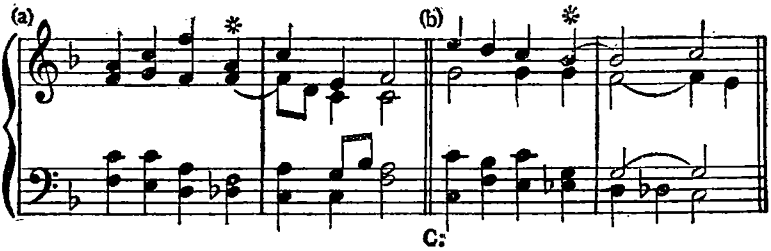
Ex. 65.



Augmented Triads—♭VI+ and ♭III+.

The augmented triads built on ♭6 and ♭3 are rare. The ♭VI+ may progress to $\underset{5}{\text{I}}$ or V. The ♭III+ is borrowed from the tonic minor. The following examples suggest ways to employ these unusual forms:

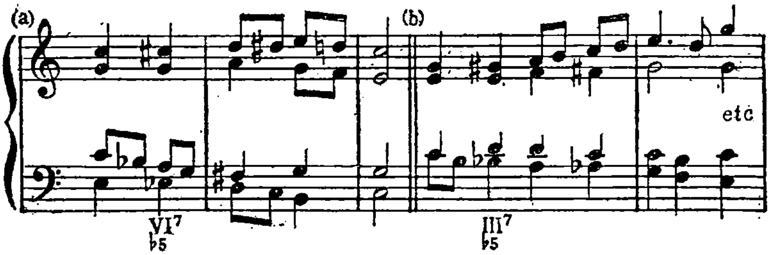
Ex. 66.



Augmented-sixth Forms.

The vi$_7$ with ♯3rd and ♭5th is an augmented-6th chord and is usually employed only when modulating. The iii$_7$ with ♯3rd and ♭5th is also an augmented-sixth chord and suggests a modulation. Ex. 67 shows these chords employed without a definite modulation, altho another key may be suggested.

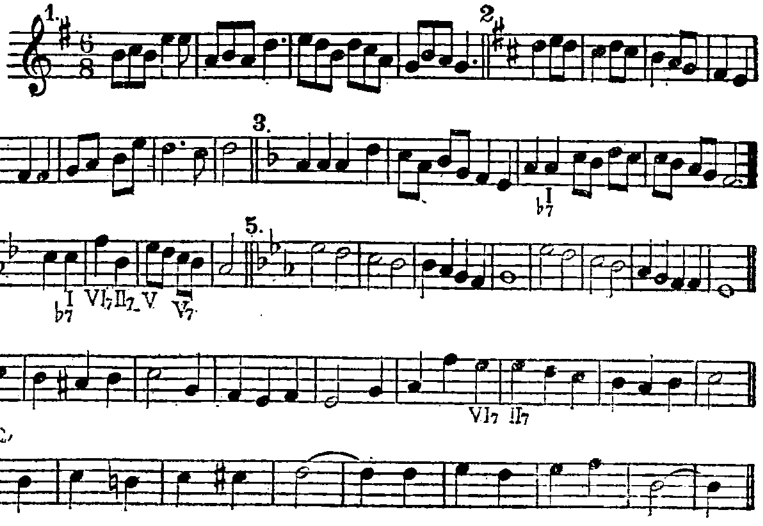
Ex. 67.

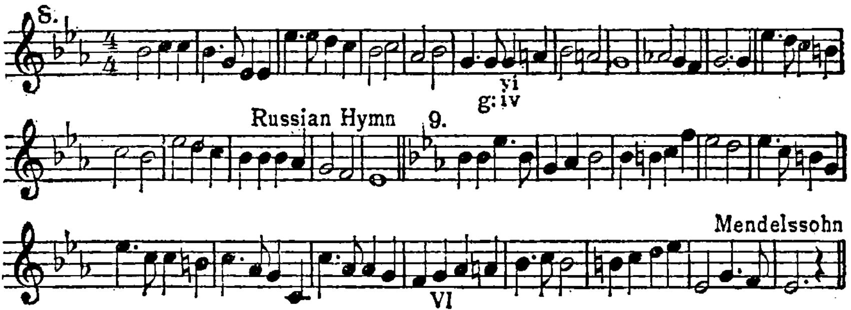


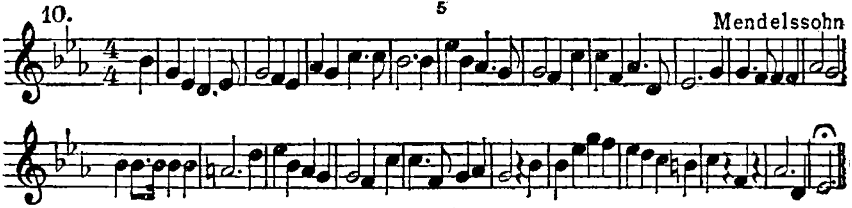
Melodies to Harmonize.

The following melodies include III, VI and ♯vi°$_7$°. Each melody can be harmonized in several ways. Try the chromatic chords in different places. In No. 5 employ diatonic chords in the fore-phrase, chromatic chords in the after-phrase.

Ex. 68.



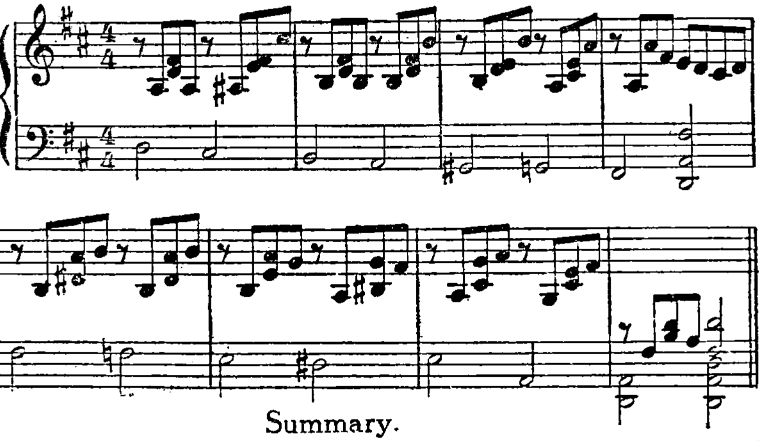




Creative Work.

Write original melodies over the accompaniment form of Ex. 69. The student should now be able to invent original accompaniments from the various chord patterns given and write small compositions employing the chords of this chapter.

Ex. 69.



Summary.

1. The most common forms of the submediant and mediant are VI and III. The usual resolutions are similar to those already discussed in diatonic progressions.

2. The vi7 with ♯ root and ♯ third is a diminished seventh chord and embellishes the dominant.

3. The augmented forms, ♭VI+ and ♭III+, are rarely used. The ♭III+ is borrowed from the tonic minor.

4. The ♭VI is borrowed from the tonic minor and is more often seen than ♭III.

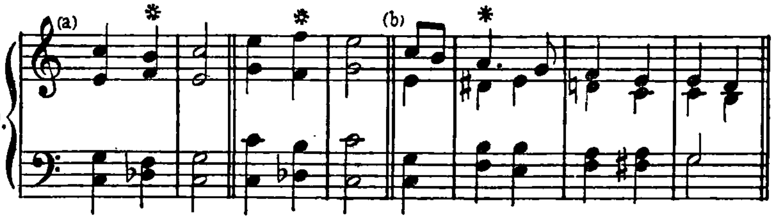
5. Both vi7 and iii7 can be altered to the augmented-sixth form, suggesting a modulation.

Chapter VII.

Alterations of the Subtonic.

Chromatic forms of the subtonic are difficult to classify. They usually sound like forms of dominant harmony (with root omitted) or they suggest modulation. Play Ex. 70. At (a) the subtonic with ♭3rd sounds like $\underset{\flat 5}{\mathrm{V}_7}$ with root omitted. At (b) the subtonic with ♯3rd progresses to iii and sounds more like an independent chord because of the root relations which follow the "natural" order of progression.

Ex.70.

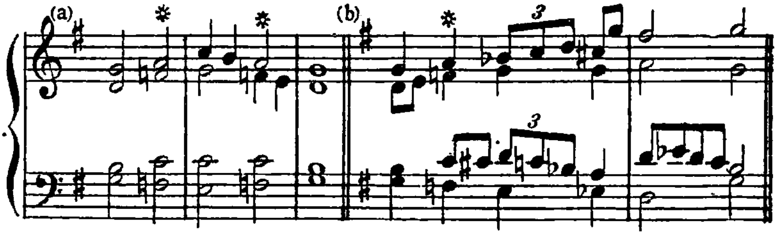


The various alterations of the subtonic will be discussed in order, starting with the altered root.

1. The subtonic may appear with ♭root. What type of triad is this? The ♭VII progresses to subdominant harmony and suggests a modulation to the key of the subdominant, unless preceded and followed by chords which establish the original key. In Ex. 71 the progression at (a) is quite "modal" in quality. Since the subtonic (leading-tone) is altered, the tonality of the passage is vague. The example at (b) remains in the key but is suggestive of the minor mode.

Find the ♭VII in "Matona" of Lassus. This example is No. 156 in Twice 55 Community Songs, No. 2.

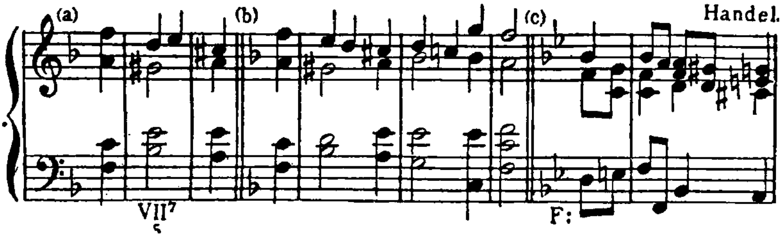
Ex.71.



2. The subtonic with ♭3rd was shown in Ex. 70. It sounds like $\underset{\flat 5}{\mathrm{V}_7}$ with root omitted. This chord is used in first inversion ($\underset{\flat 3}{\mathrm{vii}}$). The chord-5th (scale 4) is doubled because it is a primary tone and because neither the leading tone nor the chromatic tone should be doubled. The subtonic with ♭3rd sometimes includes a ♭7th, which is ♭6 of the scale. Both $\underset{\flat 3}{\mathrm{vii}}$ and $\underset{\flat 3}{\mathrm{vii}}^{\flat 7}$ are augmented-6th chords.

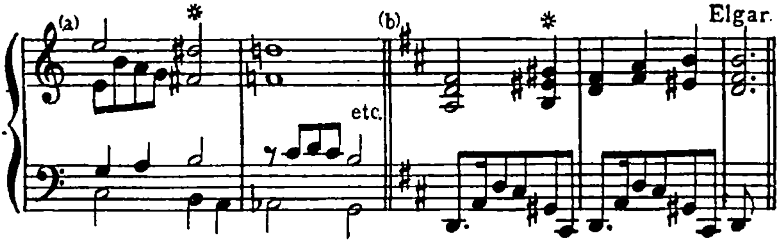
3. The subtonic with ♯3rd always includes a seventh (scale 6). It is used in the second inversion ($\underset{5}{\mathrm{VII}_7}$) and progresses to iii, III or $\underset{5}{\mathrm{vi}}$. What species is the subtonic-7th with ♯3rd? It is also an augmented-6th chord. The progression $\underset{5}{\mathrm{VII}_7}$ to III suggests a modulation to the relative minor key, tho not necessarily so. Refer to Ex. 72.

Ex.72.



4. The subtonic with ♯3rd and ♯5th is a major triad. With the seventh added it is a first species chord. It is rarely used. When resolving to the tonic the tonality remains clear, but progressing to iii a modulation is suggested. The following examples show VII$_7$ employed *without* effecting a modulation.

Ex.73.



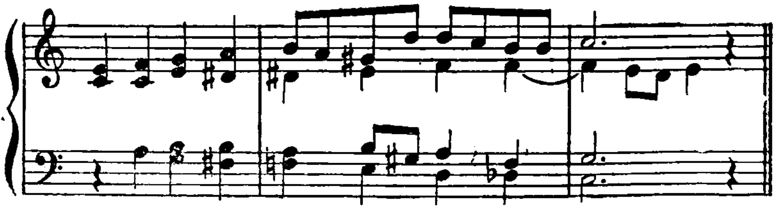
Keyboard Practice.

1. Play the following progressions in four part harmony:

I ♭VII $\underset{3}{\mathrm{IV}}$ $\underset{3}{\mathrm{iv}}$ $\underset{5}{\mathrm{I}}$ V$_7$ I   I ♭VII $\underset{\flat 5}{\mathrm{ii}_7}$ V I   I $\underset{3}{\mathrm{I}}$ IV $\underset{5}{\mathrm{VII}_7}$ III $\underset{5}{\mathrm{V}_7}$ I

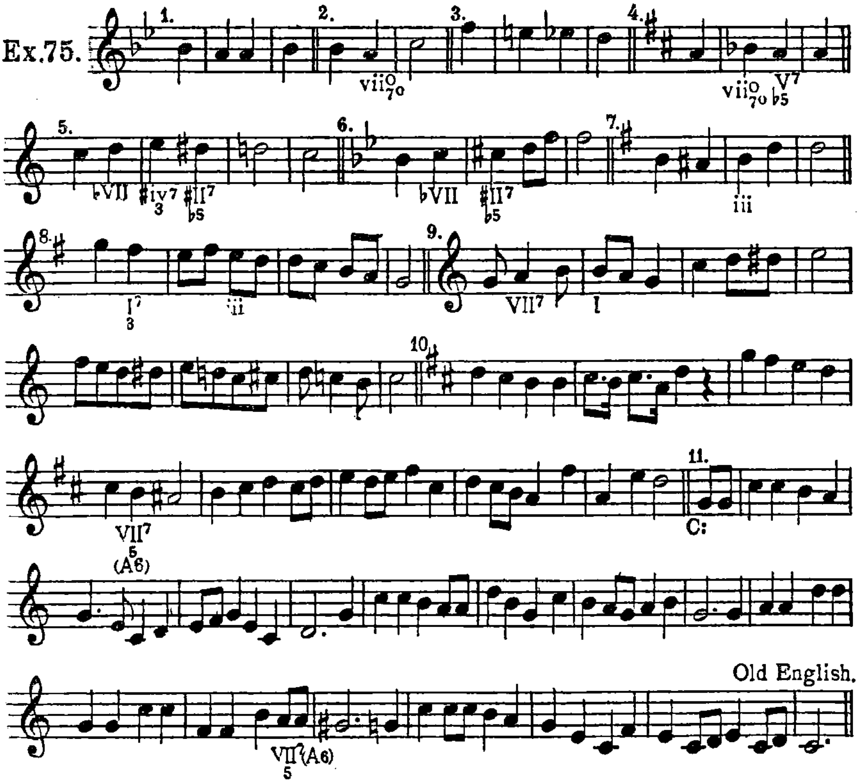
2. Transpose the following, Ex. 74. Also Ex. 70.

Ex.74.



Melodies to Harmonize.

Ex.75.



Old English.

Summary.

Questions:

1. What species of seventh chord is vii7 in the major mode? In the harmonic minor?

2. What scale chromatics are necessary to convert vii7 to a first species seventh chord?

3 Which chord degree is altered in the two augmented-6th forms of the subtonic chord?

4. The vii7 with ♯3rd usually progresses to....................?

5. The vii with ♭3rd usually progresses to...................?

6. The ♭VII suggests a modulation to the...........................key?

7. { Which chord degree of vii7 cannot be flatted?
Which chord degrees of vii7 cannot be sharped?

Chapter VIII.

Modulation thru Chromatic Chords.

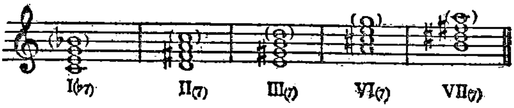
Table of Chromatic Chords.

The following table of chromatic chords (Ex. 76) is included as a summary of the work in preceding chapters and to serve as a basis for the discussion of modulation which follows.

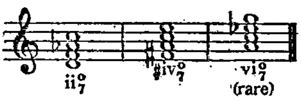
In Ex. 76 the chords are grouped according to the *type* of triad or the *species* of seventh chord. Not every possible chromatic chord has been included, as several which are theoretically possible are practically never used. Several chords in the table are open to question as *strictly chromatic chords* since they so definitely suggest a modulation. The table includes *chromatic chords only* and second species sevenths are omitted, since they are almost always diatonic.

Group 1. Major triads (♯3rd) and First Species Sevenths.

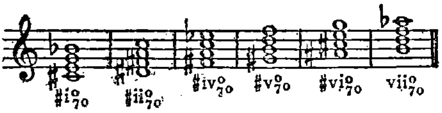
Ex. 76.



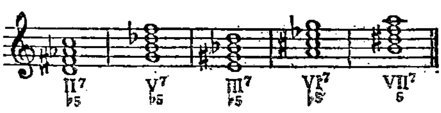
Group 2. Third Species.



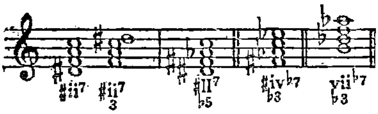
Group 3. Diminished Sevenths.



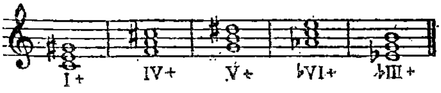
Group 4. Doubly-dissonant Species, (aug. 6th). Used in 2nd inv.



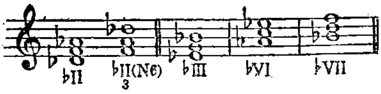
Group 5. Aug. 6th chords sounding like V7.



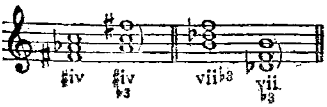
Group 6. Augmented Triads.



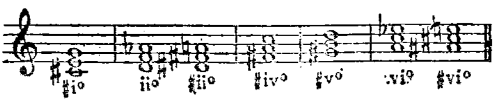
Group 7, Major Triads (exclusive of Group 1).



Group 8. Aug. 6th chords (triads).



Group 9. Diminished Triads (seldom used without the 7th).

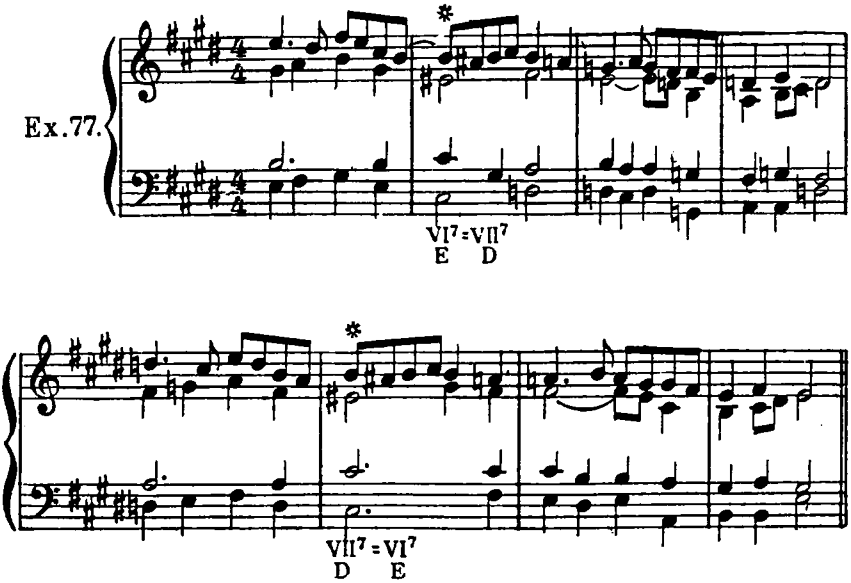


Modulation.

The possibilities of modulation thru chromatic chords are practically limitless. There is space for only a few examples. The student will learn by experiment. More facility will be gained by writing short originals based upon the models rather than by harmonizing given melodies.

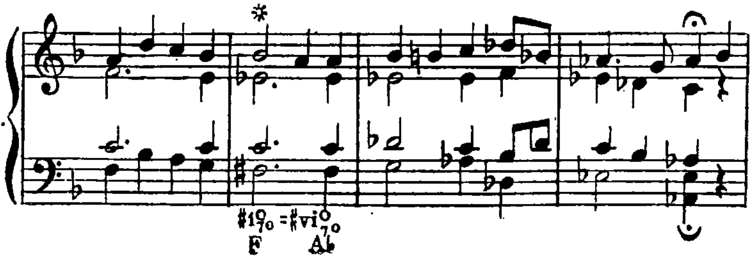
Referring to Group 1, note that there are five first species seventh chords in a major key. Any one of these may be taken for another and a modulation effected. For example: the VI7 may be used as a VII7. In Ex. 77 this progression is illustrated in a period. The VI7 of E major becomes the VII7 of D major. In the afterphrase the VII7 of D is employed as the VI7 of the original key.

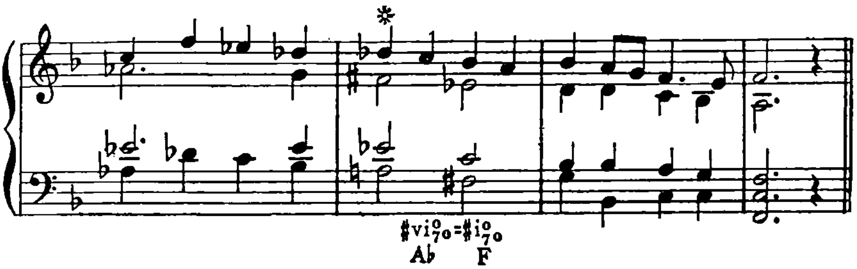
Ex.77.



In Ex. 78 a modulation is made by using diminished-7th chords, both being chromatic. The ♯i°7° of F major becomes the ♯vi°7° of A♭ major. In the second phrase the process is reversed, ♯vi°7° (A♭) employed as ♯i°7° (F).

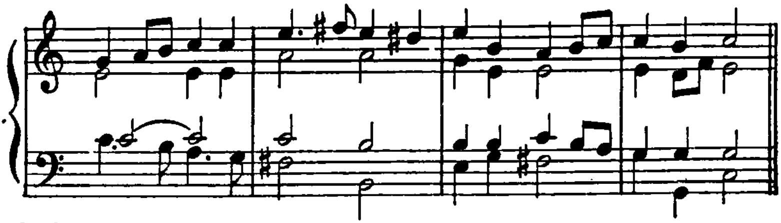
Ex.78.





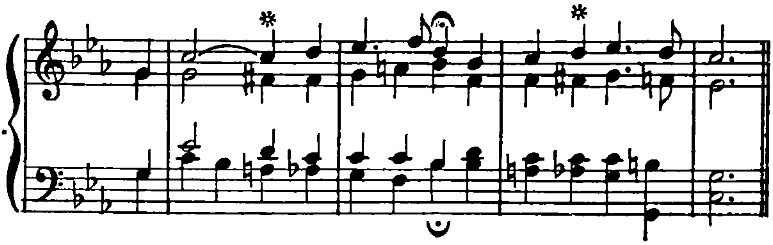
In Ex. 79 a modulation is made from C major to e minor and back to the original key thru a third species chord. The ♯iv°$_7$ of C becomes the ii°$_7$ of e.

Ex.79.



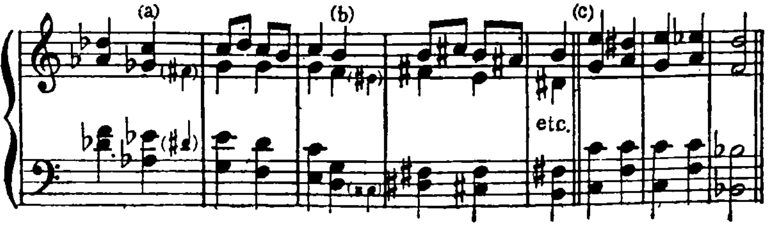
The doubly-dissonant species (shown in Group 4) can be used for modulation. In Ex. 80 the $\underset{5}{\text{II}_7}$ of c minor is taken as $\underset{\flat 5}{\text{III}_7}$ of B♭ major. Returning to c minor, the $\underset{\flat 5}{\text{III}_7}$ of B♭ is employed as $\underset{5}{\text{II}_7}$.

Ex.80.



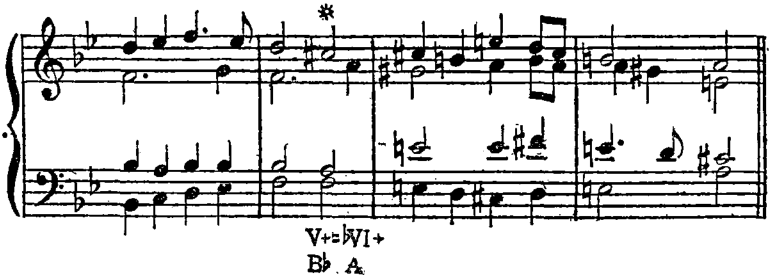
The augmented-6th chords which sound like V$_7$ are useful for modulation. By *enharmonic notation* a V$_7$ can be used as any one of the augmented-6th chords shown in Group 5. In Ex. 81 at (a) the V$_7$ of D♭ major is enharmonic with the $\sharp\underset{\flat 5}{\text{II}_7}$ of C major. At (b) the V$_7$ of C major is enharmonic with the $\sharp\underset{\flat 5}{\text{II}_7}$ of B major. At (c) the $\sharp\underset{3}{\text{ii}_7}$ of C major is enharmonic with the V$_7$ of B♭ major.

Ex.81.



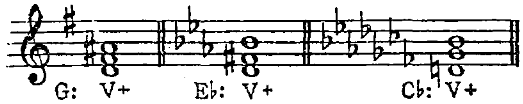
Modulation thru the augmented triad is interesting and not overworked. Any one of the augmented triads shown in Group 6 can be used for another. In Ex. 82 the V+ of B♭ major becomes ♭VI+ of A major. The doubling is important. It is better to avoid doubling the chromatic tone in either key. This can be accomplished by changing the arrangement of the voices.

Ex. 82.



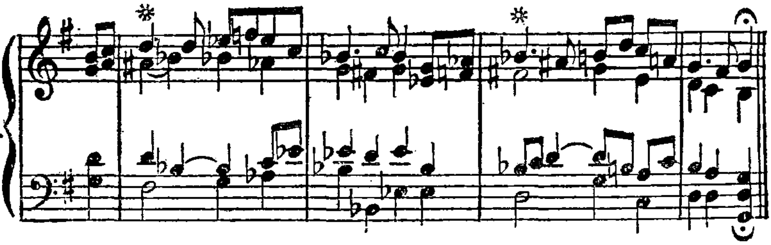
By enharmonic notation any augmented triad can be V+ in three keys. Refer to Ex. 83.

Ex. 83.



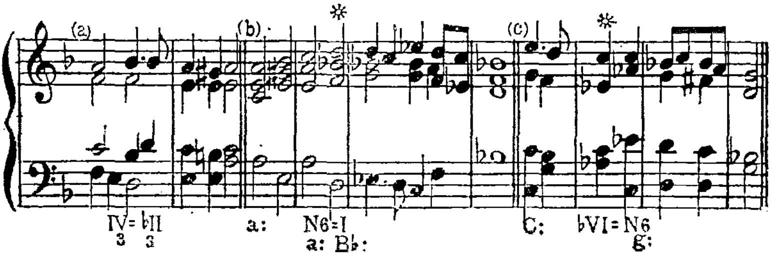
Ex. 84 shows the V+ of G used as V+ of E♭ and vice versa. Notice the doubling and the movement of voices.

Ex. 84.



Ex. 85 illustrates modulations with chromatic major triads. The ♭II$_{3}$ (Neapolitan 6th) is particularly useful for modulation.

Ex. 85.

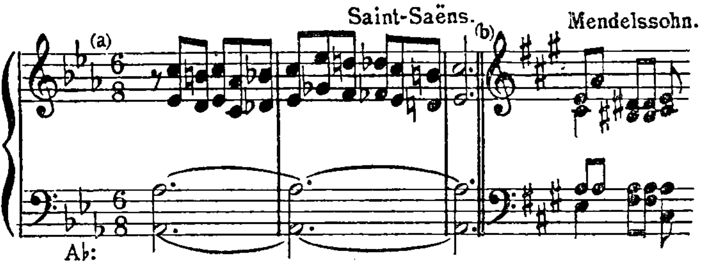


Chapter IX.

The Augmented Supertonic (♯2).

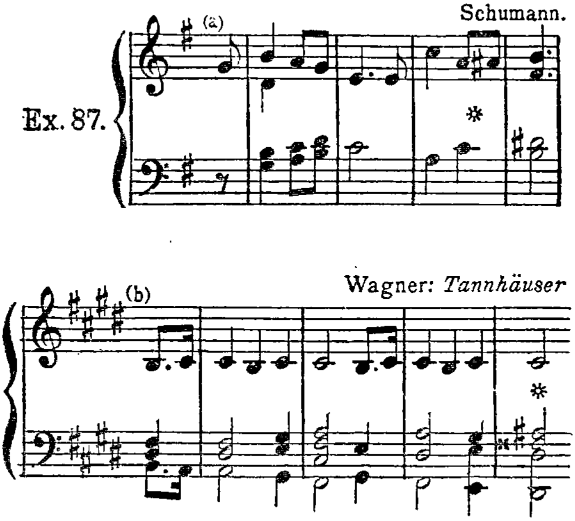
The augmented second of a key (♯2) is a companion tone for ♯4, the two tones being very frequently used to embellish a tonic chord. Ex. 86.

Ex. 86.



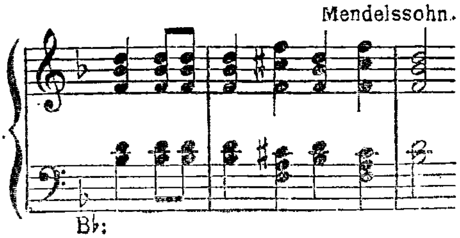
♯2 as root of a chord used in first inversion (major key) forms an augmented-sixth chord resolving on III, suggesting a modulation. Ex. 87 (a).

Ex. 87.



♯2 as a chord-3rd with ♯4 transforms a subtonic chord to a major triad. With chord-7th the chord is a first species seventh (VII$_7$). Ex. 87 (b).

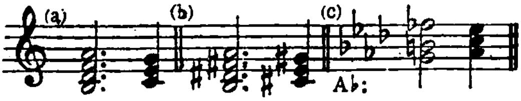
Ex. 88.



♯2 as chord-5th changes the dominant from a major to an augmented triad. Ex. 88. In all chromatic chords the student should note the practice of great composers in regard to doubling. Ordinarily the chromatic tones are not doubled in fourpart writing. In Ex. 88 the five parts account for the doubling.

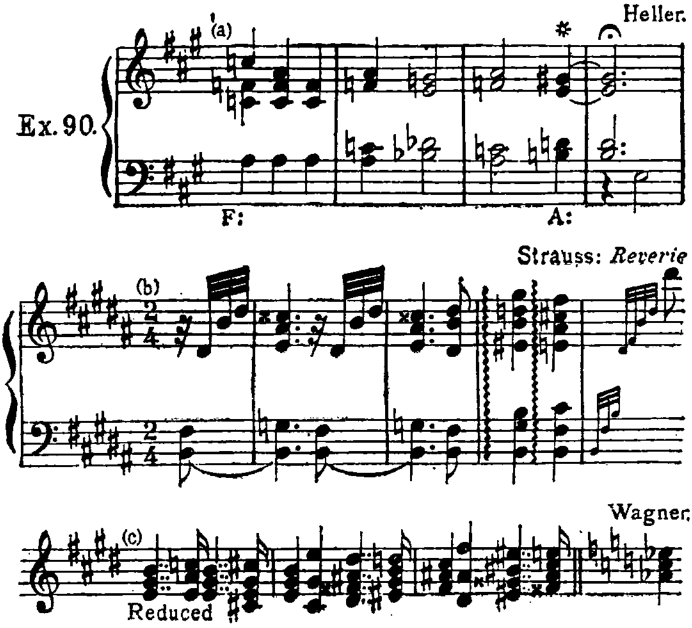
In the following example, the Rheingold theme is given as at (a); later when the Rhein Maidens had lost their gold, it appeared as at (b); still later when they asked for the return of the gold, the theme appeared as at (c). Note the use of ♯2.

Ex. 89.



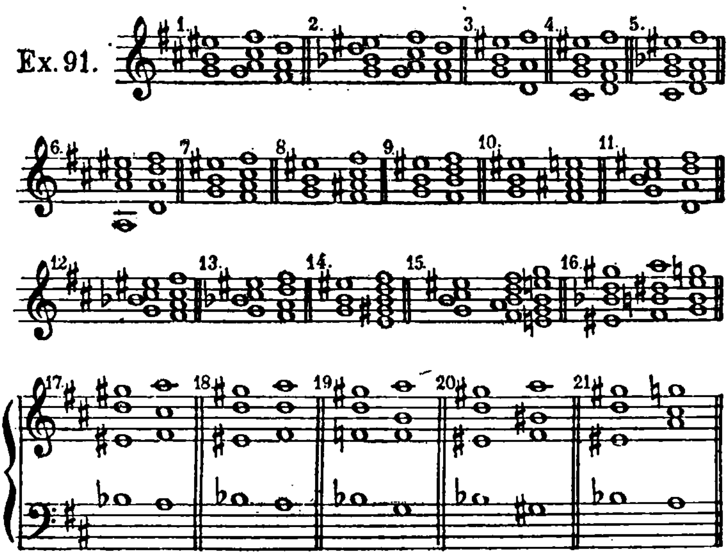
Find ♯2 in the following excerpts and note its use as a chord-3rd. The Strauss excerpt illustrates the use of a tonic pedal point.

Ex. 90.



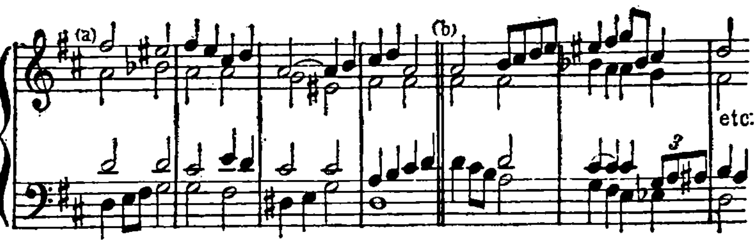
In different keys employ ♯2 as chord root, chord-3rd and chord-5th. Resolve the augmented-6th chords which include ♯2 on a tone taken as root, third, fifth, seventh, large and small ninth. Refer to Ex. 91.

Ex. 91.



The chord groups in Ex. 91 offer suggestions for original work. The student can expand any of the progressions into phrase or period forms. Ex. 92 illustrates the progressions in Nos. 2 and 12.

Ex. 92.



Since the augmented fourth (♯4) and small sixth (♭6) are both components of the subdominant and supertonic chords, it is easy to understand why the augmented sixth is seen in both. The choice of chord depends upon the relations in which they appear, as with the diatonic types. The augmented-sixth form of a chord may be used when the text requires more brightness, also variety of tone color.

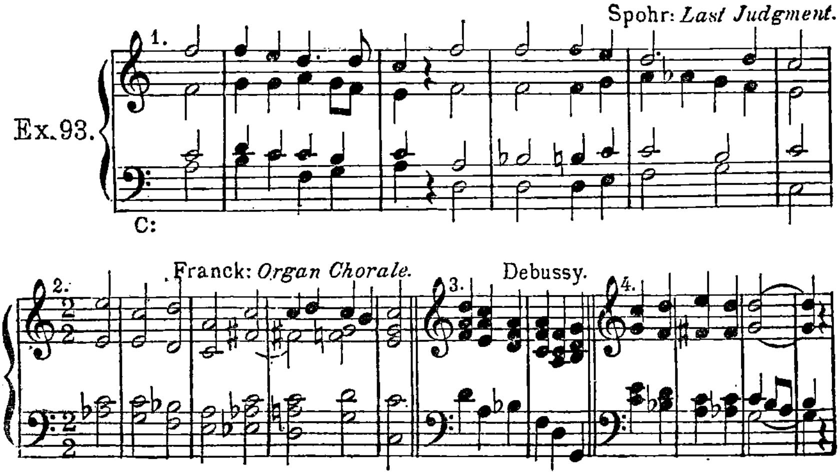
Chapter X.

The Small Seventh (♭7).

In preceding lessons the small seventh (♭7) of the scale was employed as 7th of I demanding IV, also for modulation to the subdominant key. It is often used in the minor mode (natural form) when the melody descends in consecutive degrees.

In the following examples ♭7 appears as root:

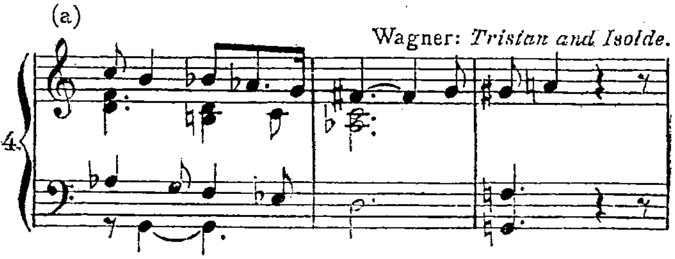
Ex.93.



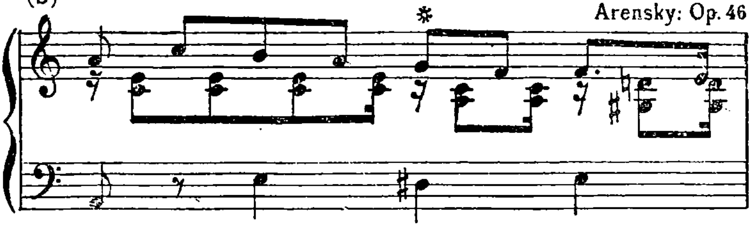
Notice the consecutive second inversions in No. 2 of Ex. 93. When it is desired to emphasize the dominant quality of a I_5 the chord-5th is doubled. In the excerpt mentioned, the second inversions are used as *passing chords* and the chord-5th is *not* doubled.

At (a) in the following example, both the large and small seventh occur in the same chord. The large 7th is the chord tone and the small 7th is a passing tone. At (b) the G, which is small 7th, is a passing tone.

Ex.94.

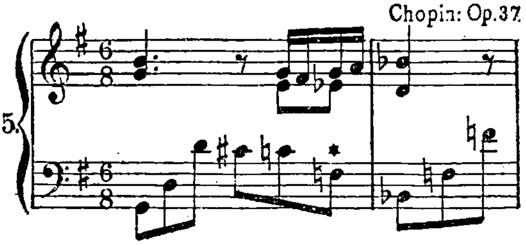


(b)



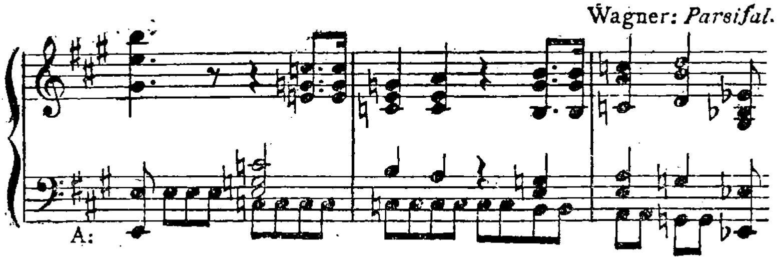
Ex. 95 shows the ♭7 of G major taken as root of a dominant-9th chord. Continue the pattern at the keyboard until the key of G is again reached.

Ex. 95.



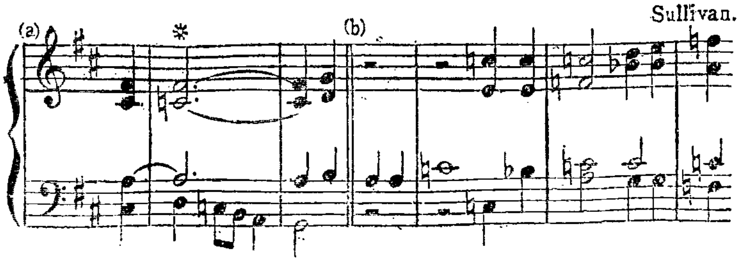
In Ex. 96, G, the ♭7 of A major, becomes the 5th of a new tonic chord. The same progression occurs at the end of the excerpt where the ♭7 of C major becomes the 5th of a new tonic.

Ex. 96.



In Ex. 97 the small 7th is taken as seventh of a V7. At (b) the small 7th is taken as root of a V7.

Ex. 97.

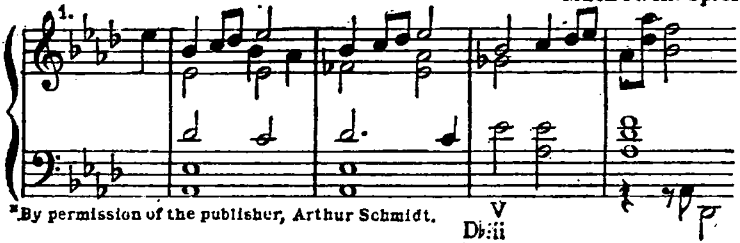


If one has trouble in identifying the chords in the analysis, play them without the chromatic alterations. In learning to use chromatic tones, the same principle of chord relationship is followed as with the diatonic progressions in preceding lessons. Each tone can be taken as root, third, fifth, etc.; also as embellishing tone.

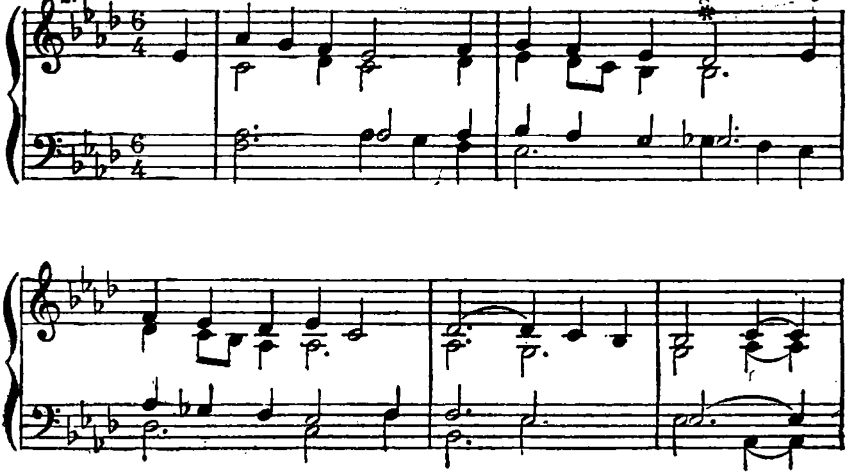
Note the use of ♭7 in the following:

Ex. 98.

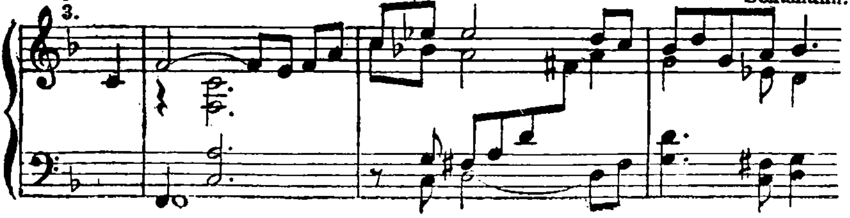
1. *MacDowell: Op. 51.



2. Wagner: *Parsifal.*



3. Schumann.



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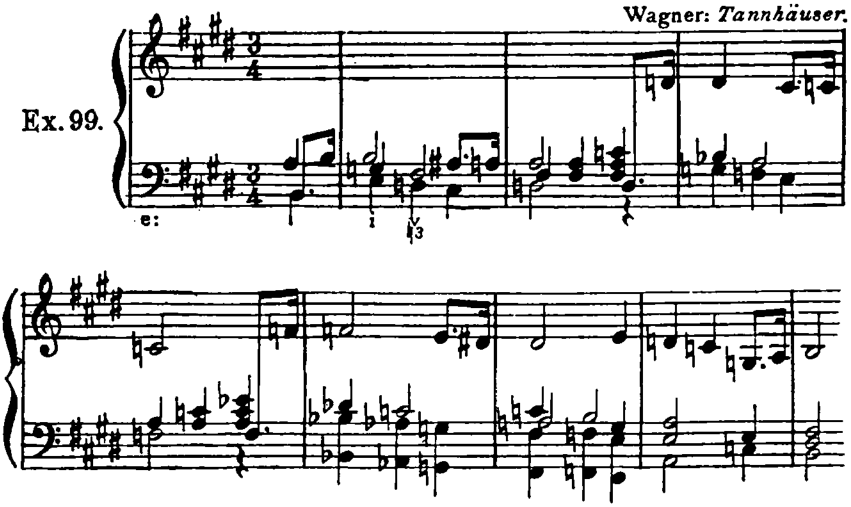
*By permission of the publisher, Arthur Schmidt.

The next example is interesting, not only because of its beauty, but because the tonality is so obscure:

Ex. 99.



Wagner: *Tannhäuser.*

Melodies to Harmonize.

Employ the small seventh in harmonizing these melodies and write some others requiring modulations.

In No. 1 be careful to observe the sequences.

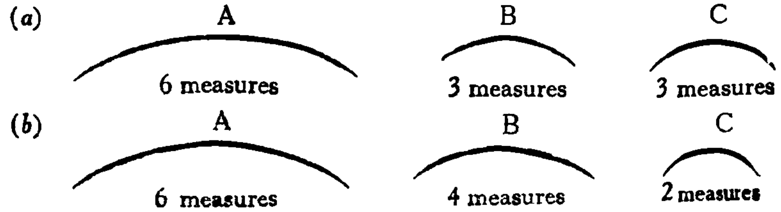
No. 2 is satisfactory with a simple accompaniment written over the given bass.

In No. 3 the passage beginning with ♭7 can be written in unison for all voices.

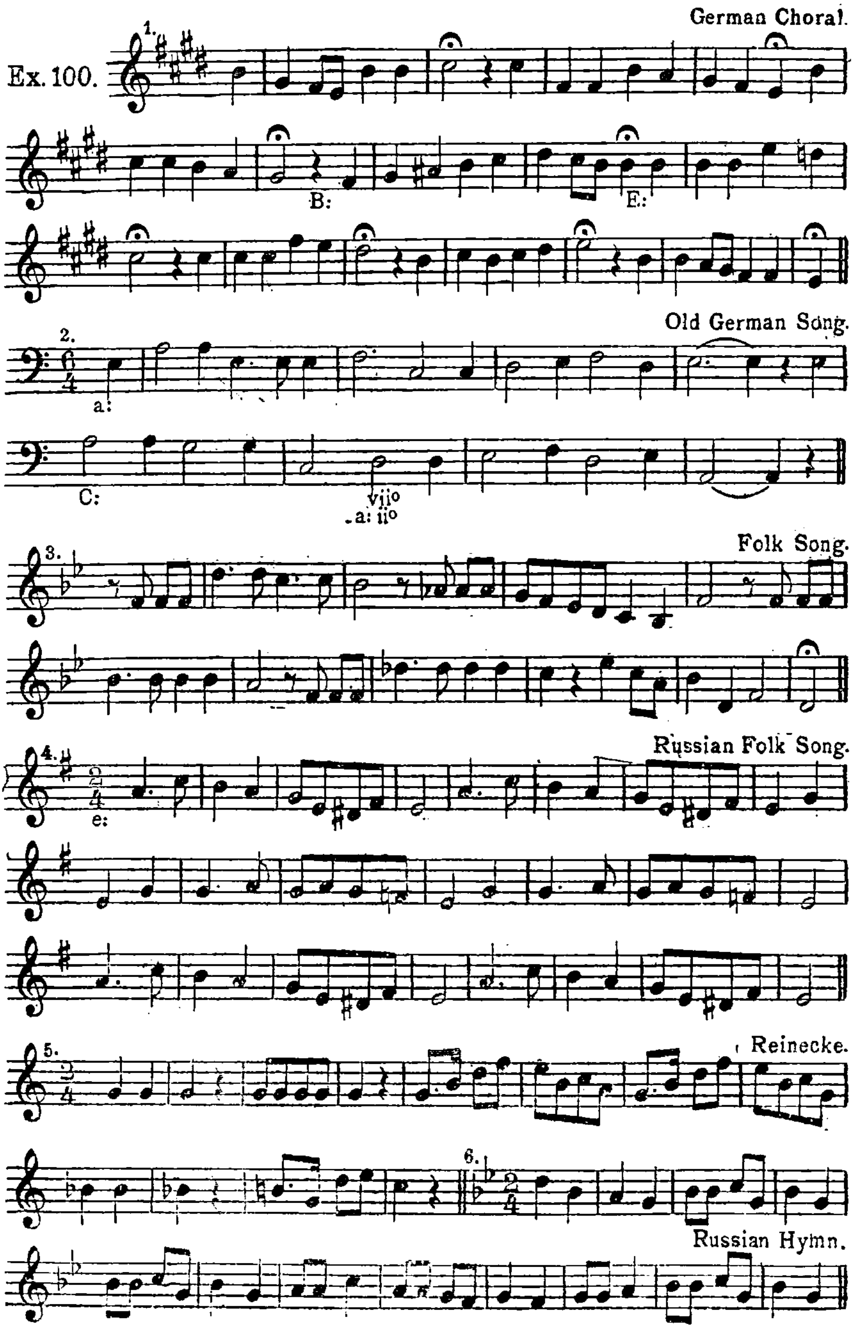
No. 4 is unusual as it starts with the iv chord.

No. 6 is effective harmonized in the *natural minor.* The harmony depends upon the manner in which one phrases this melody.

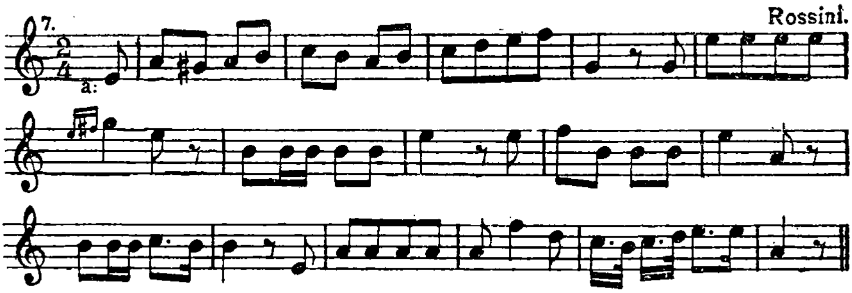
Two ways are suggested in the following diagrams:



Ex. 100.

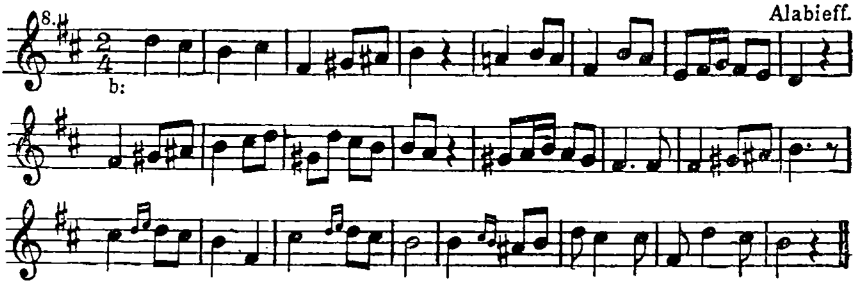

German Choral.
1.
B:
E:
Old German Song.
2.
a:
C:
vii°
a: ii°
Folk Song.
3.
Russian Folk Song.
4.
e:
Reinecke.
5.
6.
Russian Hymn.

7.



Rossini.

8.



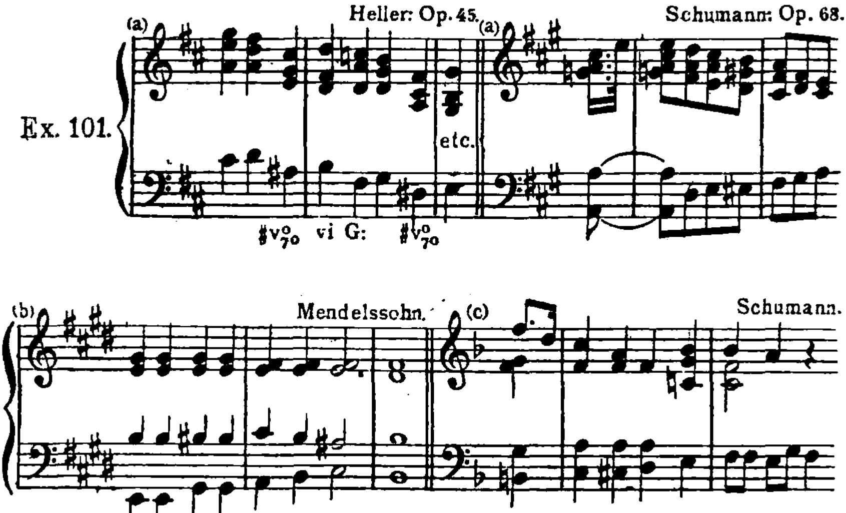
Alabieff.

Chapter XI.

The Augmented Fifth (#5).

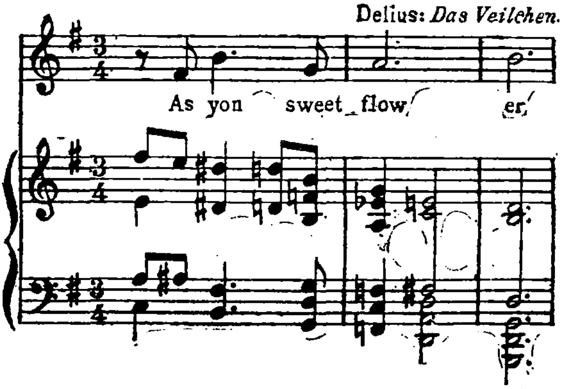
#5 demands the scale-6th. When #5 occurs as root, the chord may progress to any chord of which the submediant tone is a component. In Ex. 101 at (a) #5 is root of a V_7 resolving on vi. At (b) the chord progresses to ii_7. At (c) #5 appears as a chord-5th.

Ex. 101.



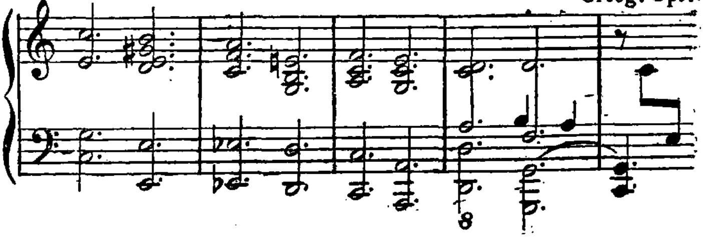
Note the use of #5 in the following exquisite excerpt. What chord degree is #5?

Ex. 102.



Note the different species of seventh chords in this:

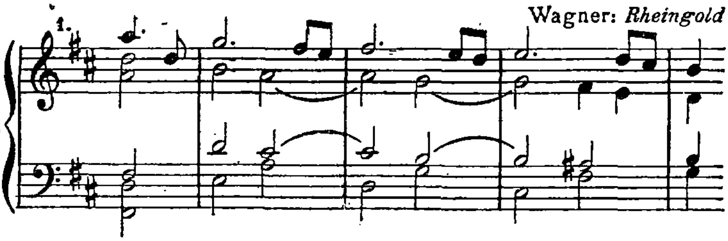
Ex. 103.



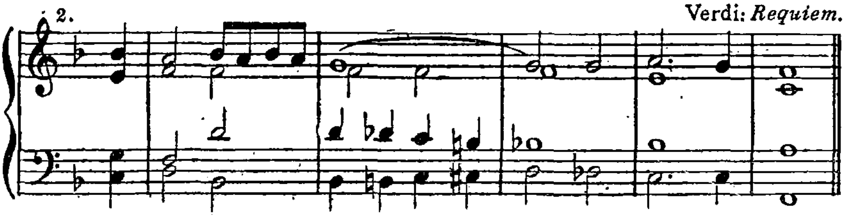
Grieg: Op. 7.

In the following examples ♯5 appears as chord-3rd without a modulation:

Ex. 104.



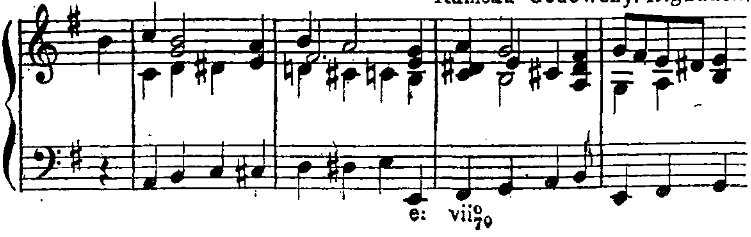
Wagner: *Rheingold*



Verdi: *Requiem.*

In Ex. 105 ♯5 appears as a passing tone and as root of a chord taken as a diatonic vii°7°.

Ex. 105.



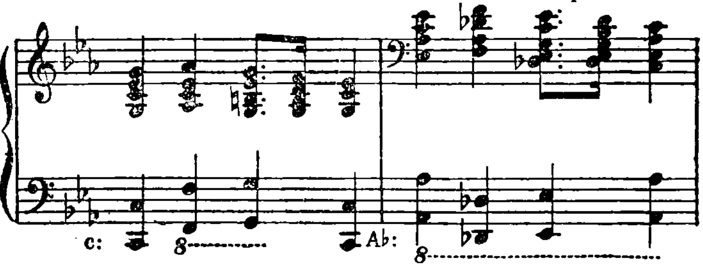
Rameau-Godowsky: *Rigaudon.*

♭6, enharmonic with ♯5.

Modulation by means of the submediant chord on the small scale 6th (♭6) is very effective and interesting. Ex. 106 shows the diatonic VI of c minor taken as a diatonic I.

Chopin: *Prelude.*

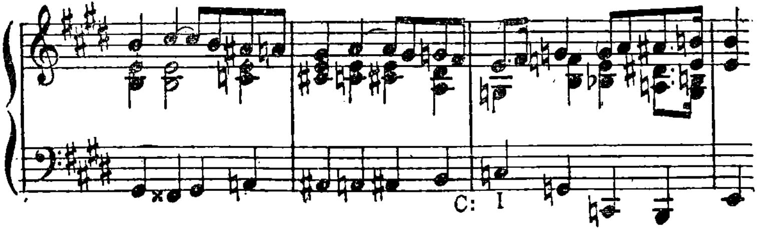
Ex. 106.



Ex. 107 shows ♭VI of E major taken as I of C major.

César Franck.

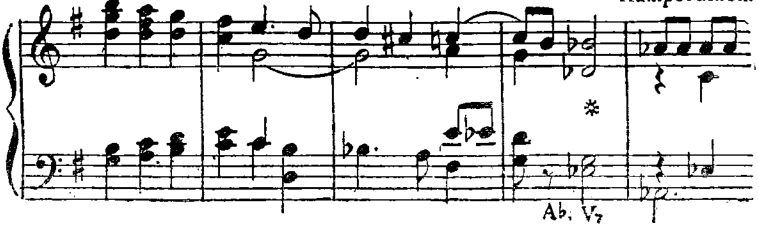
Ex. 107.



The following example shows the seventh chord on ♭6 taken as a new V7.

Humperdinck.

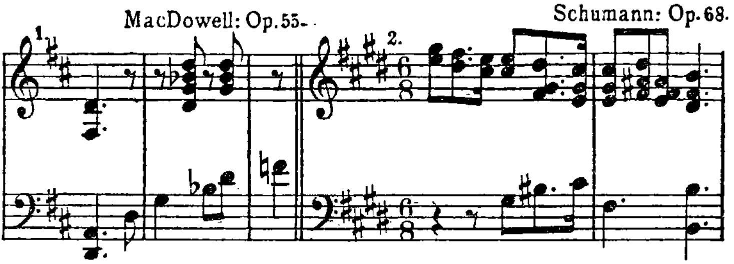
Ex. 108.



Here are some interesting examples of chromatic chords taken as:

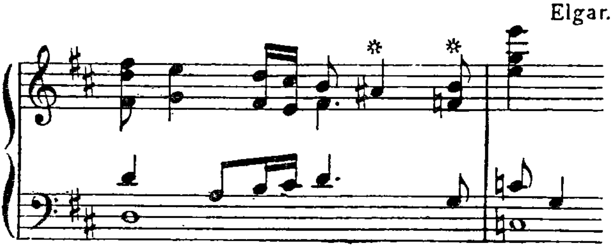
1. Chromatic for a diatonic.
2. Chromatic for another chromatic.

Ex. 109.



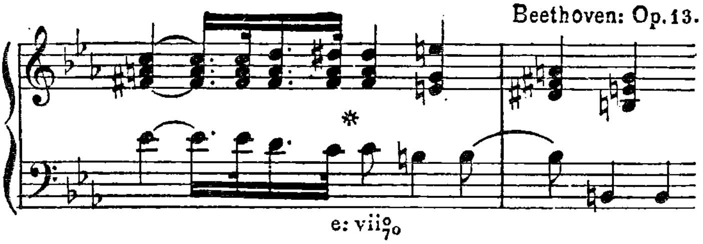
Ex. 110 shows the resolution of ♯5 on scale-6, the latter tone becoming a component of a chromatic chord which is taken as a new V_7.

Ex. 110.



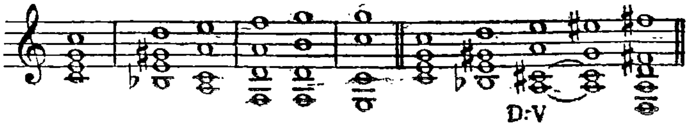
In the following, the chromatic $\sharp v^{\circ}{}_{7^{\circ}}$ is taken as a diatonic $vii^{\circ}{}_{7^{\circ}}$.

Ex. 111.



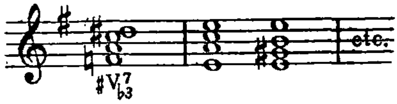
With unlimited "borrowing" the following combination is possible and useful for harmonic color.

Ex. 112.



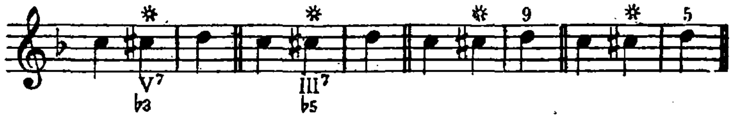
♯5 as root with ♭7 may be a component of an augmented-6th chord. This chord may be used for modulation to the supertonic key. Ex. 113.

Ex. 113.



Altho the following would rarely be used, harmonize them as indicated, employing an augmented-6th chord at the starred notes.

Ex. 114.



Melodies to Harmonize.

In harmonizing melodies, ♯5, like any chromatic tone, may be employed as a bytone or to change the mode of the chord in which it appears. Scan the melodies thru first, noting the modulations and any unusual factors.

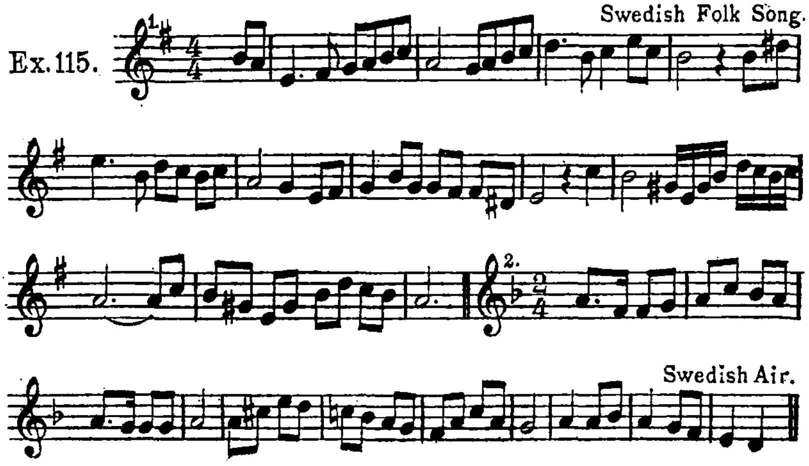
In No. 1 harmonize the sixteenth notes with one quarter-note. At points where the melody is static employ moving parts elsewhere.

In No. 3 try an "imitation" of the first five or six notes.

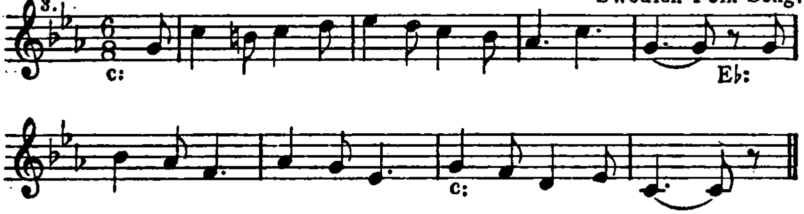
In No. 4, where the tonic chord is outlined in the first measure, it is not necessary to employ four parts. A unison passage is effective at such times.

The sequences of No. 5 are important to observe.

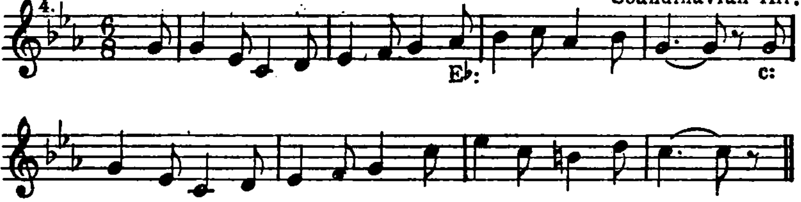
Ex. 115.



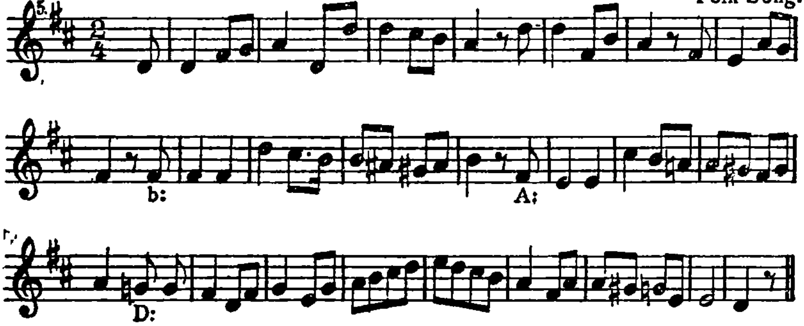
3. Swedish Folk Song.



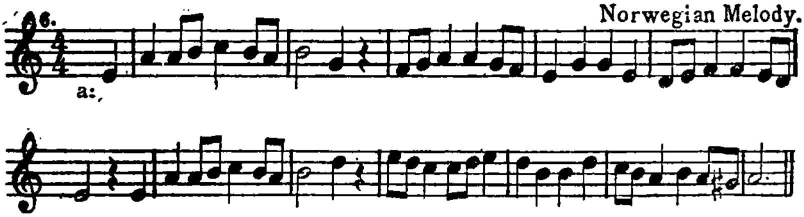
4. Scandinavian Air.



5. Folk Song.



6. Norwegian Melody.

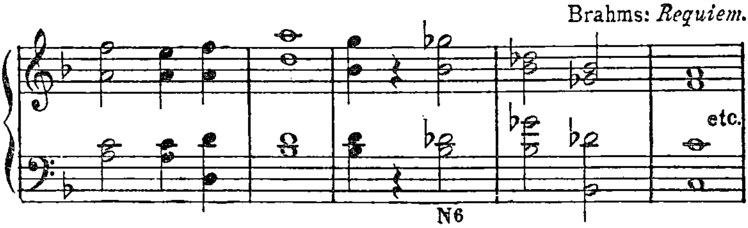


Chapter XII.

The Small Second (♭2).

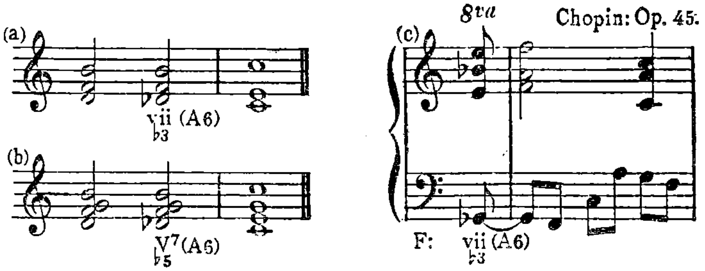
The small supertonic (♭2) is often seen as root of a chord, especially in the first inversion, when it is called the "Neapolitan Sixth." The chord-3rd is the best tone to double because it is a primary tone and the root is chromatic. However, the root or 5th may be doubled. In any case the progression is free. The $\flat\text{II}_3$ (Neapolitan Sixth) may be employed in either mode of the key, but it is more frequently found in the minor keys.

Ex. 116.


Brahms: *Requiem.*

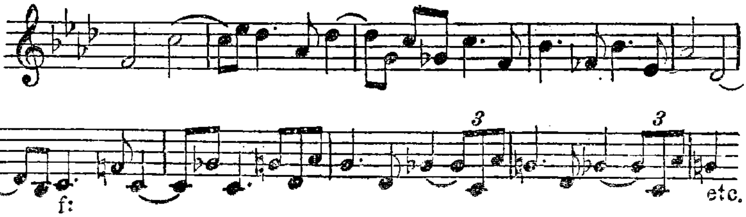
As chord-3rd, ♭2 occurs in an augmented-6th chord in first inversion, Ex. 117 (a). As chord-5th it is a component of an augmented-6th chord in second inversion (b).

Ex. 117.


Chopin: Op. 45.

The following is said to be an old melody of Brittany, used by Wagner in Tristan and Isolde: ♭2 gives the sad, plaintive character needed for the text in that particular part of the drama.

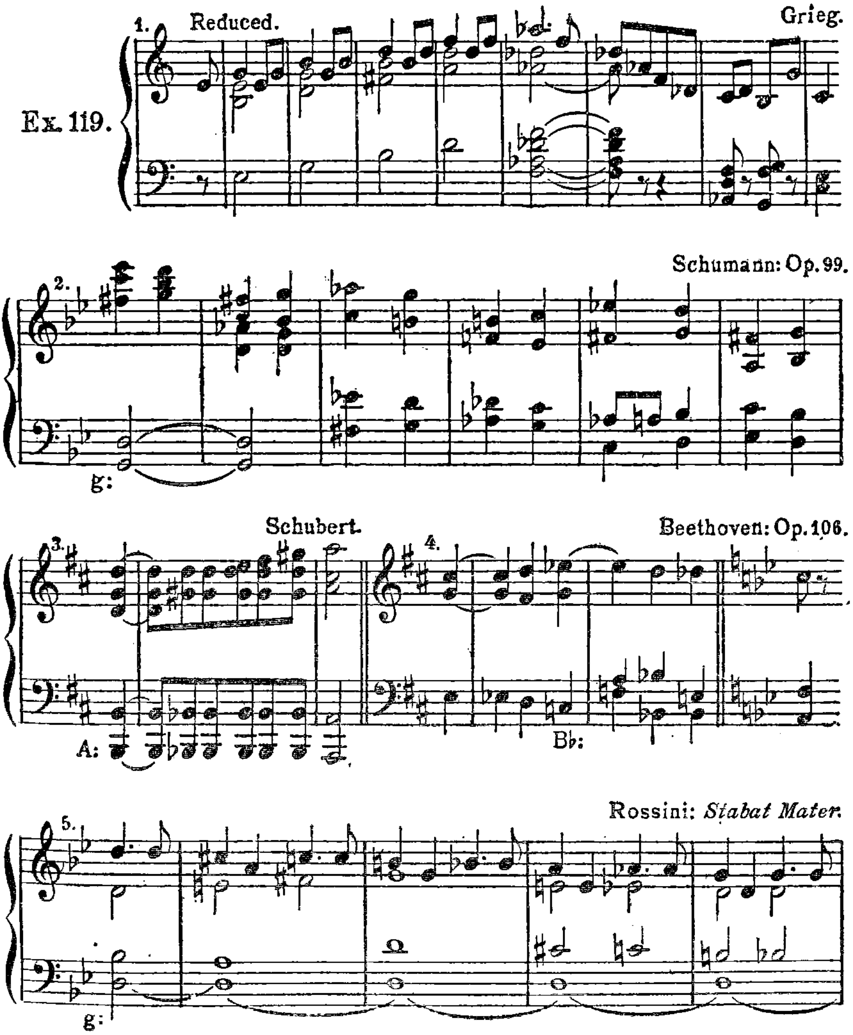
Ex. 118.



Analysis.

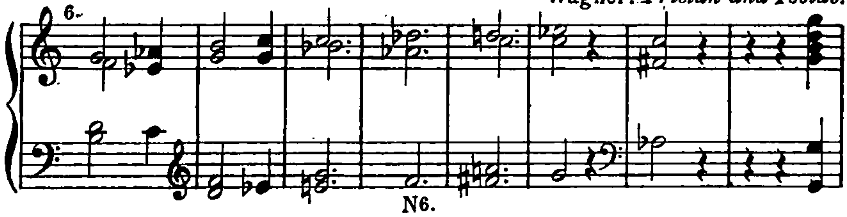
The student should be able to find the different ways in which ♭2 has been used in the following excerpts. It is interesting to note the chord relations. In the majority of cases, altho the chromatic tones destroy the original character of the harmonies, the *same progressions* occur as with the *diatonic chords.*

Ex. 119.



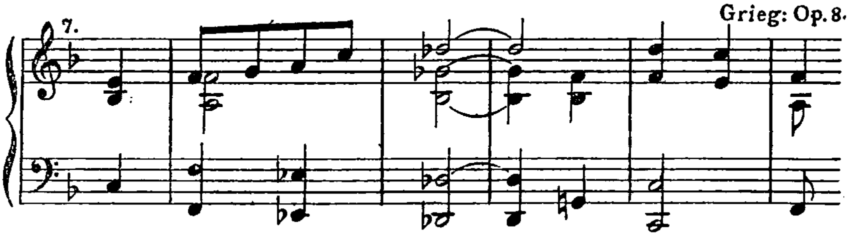
Wagner: *Tristan and Isolde.*

6.



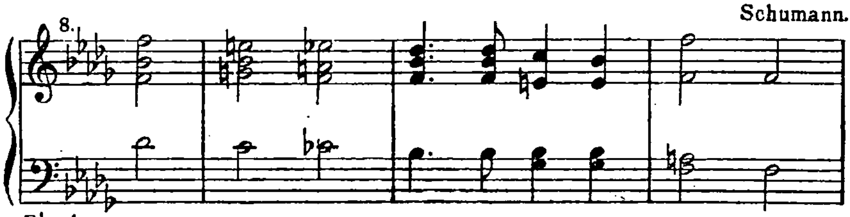
Grieg: Op. 8.

7.



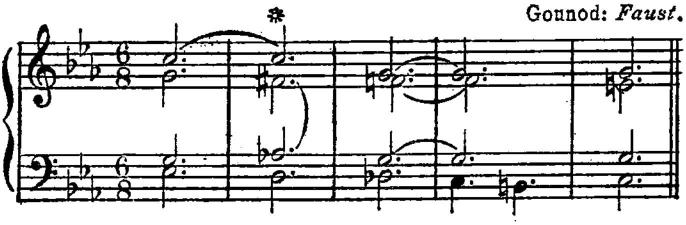
Schumann.

8.



Gounod: *Faust.*

Ex. 120.



Ex. 120 shows an augmented-6th chord in root position. The interval of the augmented-6th is "hidden," as it does not occur from the *bass* to an upper voice.

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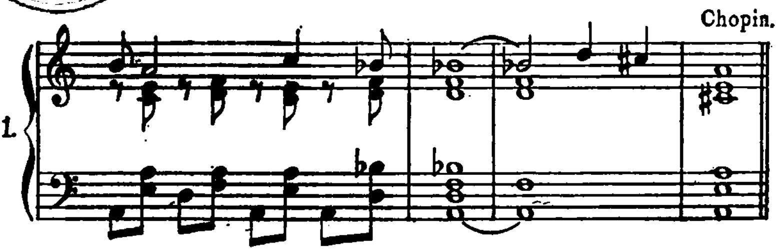
Ex.121.



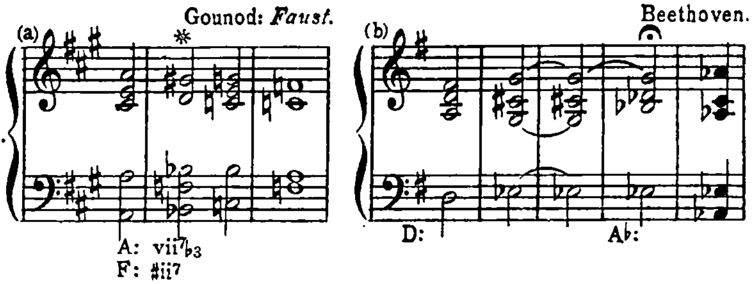
Ex. 121 shows a Neapolitan-Sixth (♭II$_{3}$) over a tonic pedal.

Modulations employing ♭2.

Ex. 122 shows ♭2 as a component of an augmented-6th chord on the subtonic, taken as the supertonic in the key of F.

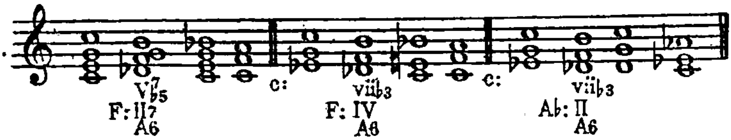
At (b), ♭2 is a component of an augmented-6th chord, the root of which—by enharmonic change—becomes a dominant 7th, effecting a modulation to the key a diminished fifth away.

Ex. 122.



A modulation may be made by taking any augmented-6th chord formed with ♭2 for the IIA6 or the IVA6 of another key. Ex. 123.

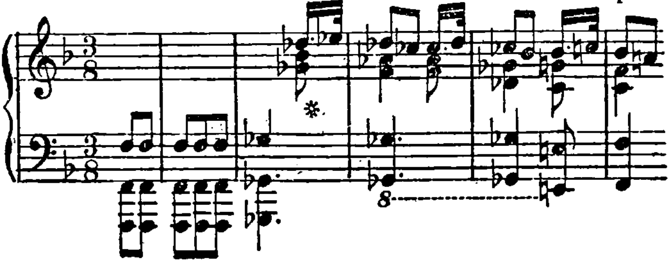
Ex. 123.



Modulations may be made by taking the Neapolitan-6th chord as another chromatic chord or as a diatonic. Some of these were suggested in Chapter VIII. Ex. 124 shows the ♭II taken as a new tonic.

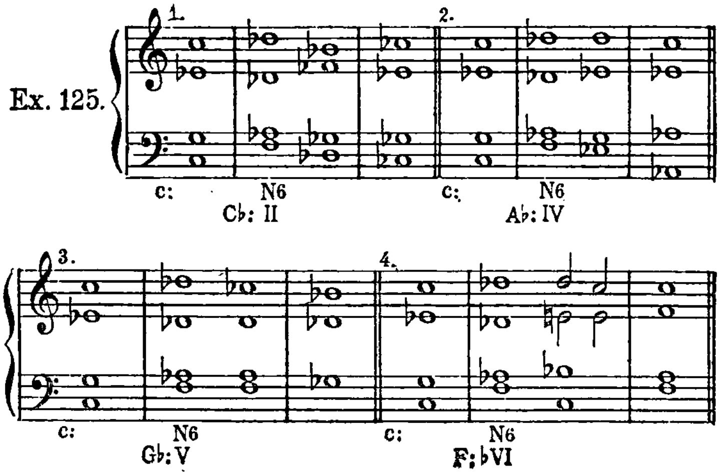
Beethoven: Op. 45.

Ex. 124.



In the following the Neapolitan-6th is taken as the supertonic, the subdominant, etc., as indicated.

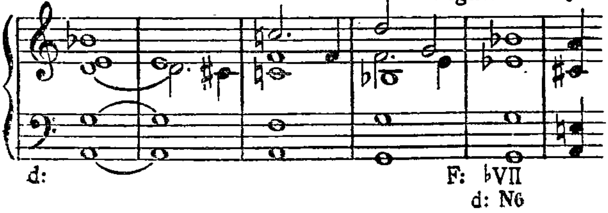
Ex. 125.



Note the beautiful modulation in the following example. The mediant chord is taken for a new tonic, and in the return to the original key (d minor) ♭7 is taken as ♭2.

Wagner: *Parsifal.*

Ex. 126.



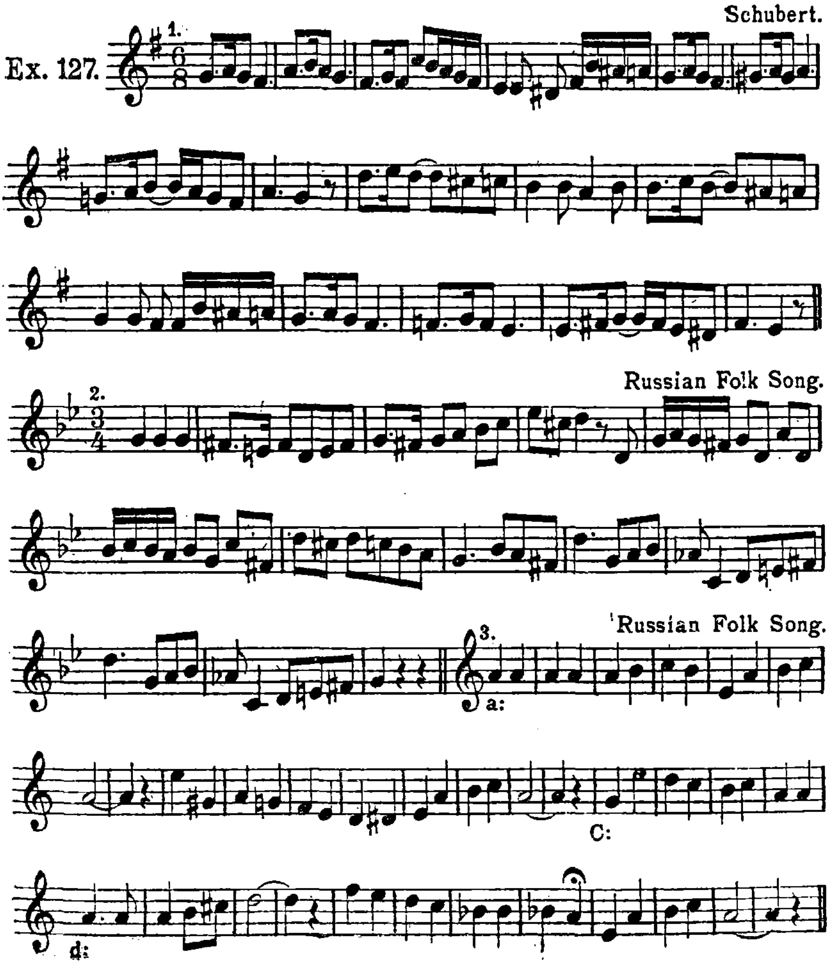
Melodies to Harmonize.

In the melodies of Ex. 127 employ ♭2 as a component of the Neapolitan-6th and the augmented-6th chords.

In No. 1 be sure to scan the melody first, noting the modulations and the sequences. The last four measures can be harmonized to include a modulation; or by using a N. 6th chord, one can avoid the modulation.

No. 2 is most effective with a piano accompaniment.

Ex. 127.

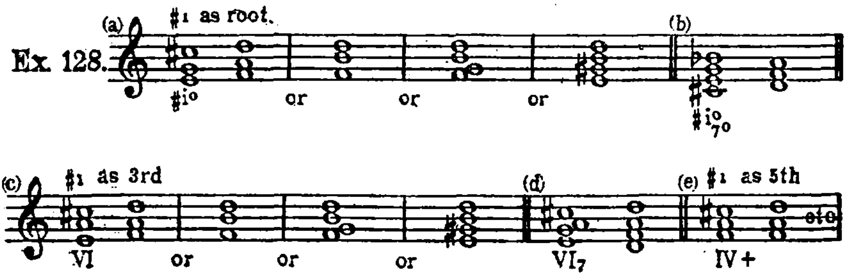


Chapter XIII.

The Augmented Tonic and Submediant (#1 and #6).

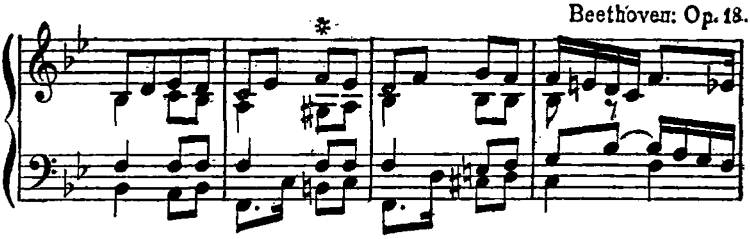
The augmented tonic (#1) resolves on the supertonic (2). #1 may be employed as root, as 3rd and as 5th of a chord. In each case the chord may progress to any harmony which includes the scale-2nd. Refer to Ex. 128.

Ex. 128.



#1 and #6 are frequently used together to embellish the dominant harmony. This progression was discussed in Chapter VI.

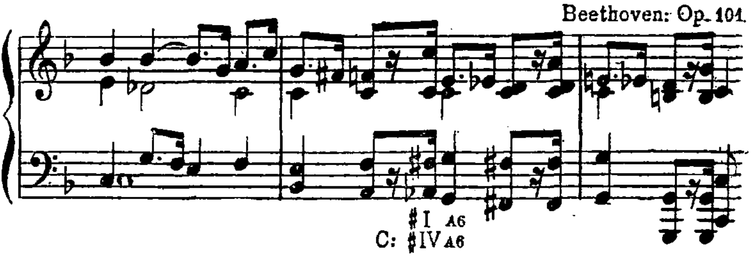
Ex. 129.



Beethoven: Op. 18.

#1 as root transforms the minor tonic chord in first inversion to an augmented-6th. When so employed it is generally, if not always, used as a modulating chord. Ex. 130.

Ex. 130.

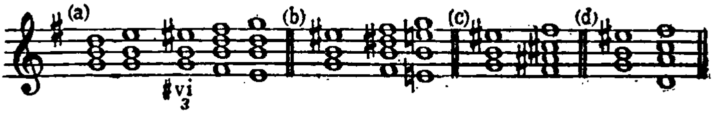


Beethoven: Op. 101.

#6 and ♭5 are rarely used as components of a chord, ♭7 and #4 being preferred instead.

#6 may occur as an embellishing tone of some kind. It could be root of an augmented-6th chord leading to iii, III, VII or V7 as indicated in Ex. 131.

Ex. 131.

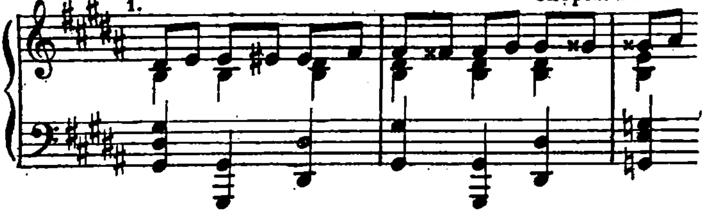


Analysis.

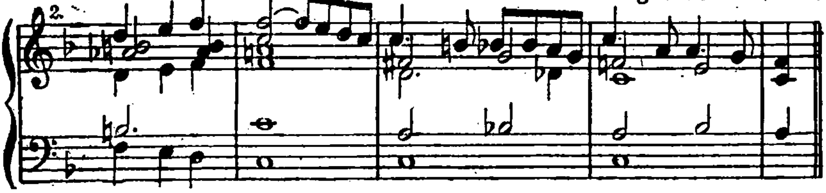
Find ♯1 and ♯6 in the following excerpts. Note their use as chord-root; chord-3rd; chord-5th; or as bytones.

Ex. 132.

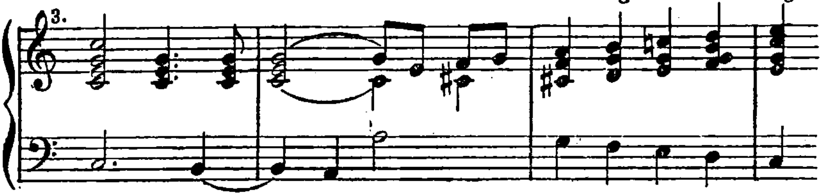
Chopin: *Prelude.*



Wagner: *Tannhäuser.*

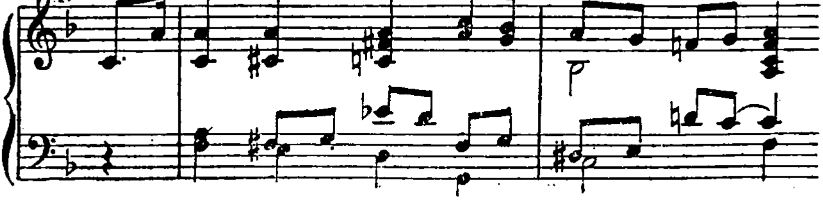


Wagner: *Meistersinger.*



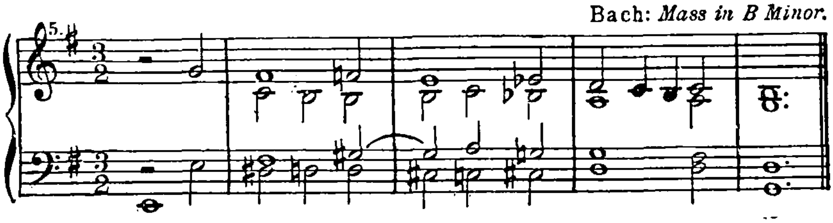
In No. 4 note the use of ♯1 as a bytone and as chord-3rd. ♯6 appears as a bytone. Notice the unusual melody line in the tenor voice.

Schumann: Op. 23.

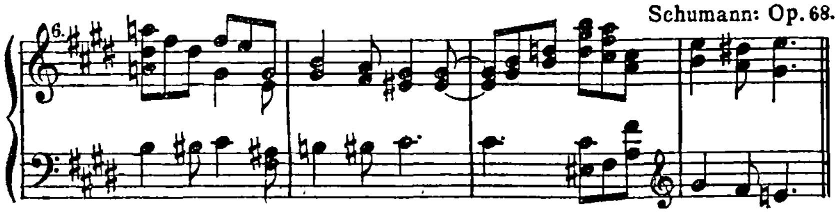


This excerpt from Bach is a good example of "borrowed" chromatic tones with the tonality remaining clear:

Bach: *Mass in B Minor.*

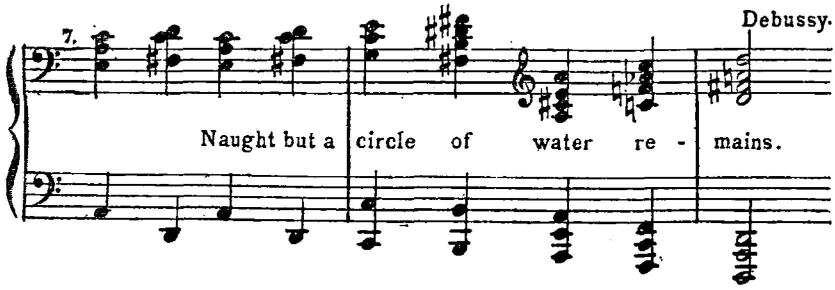


Schumann: Op. 68.



How well Debussy expresses the thought of expanding circles when Melisande drops her ring in the water:

Debussy.

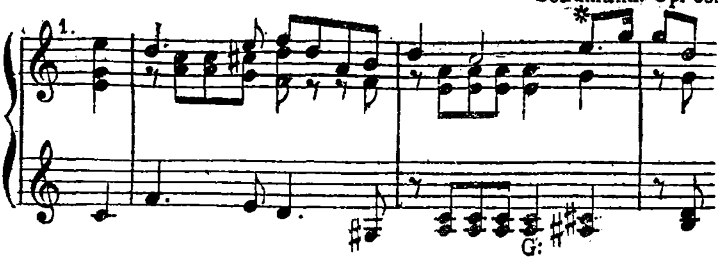


Modulations Employing #1 and #6.

Here we have #6 and #1 taken as #2 and #4, effecting a modulation to the dominant key:

Schumann: Op. 68.

Ex. 133.



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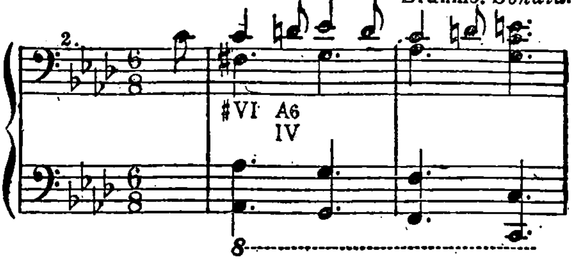
In the following example an augmented-6th chord on ♯6 is taken as the VIA-6th in C major.

Brahms: *Sonata.*

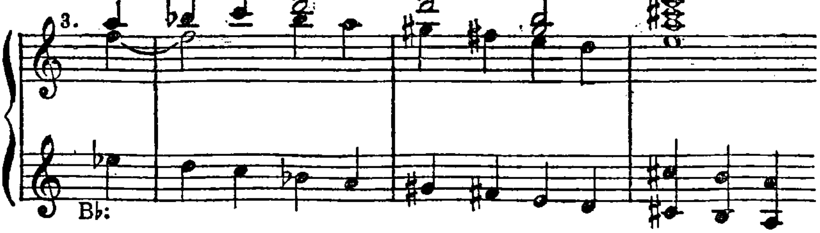
2.



In No. 3 note the rather startling modulation from B♭ to A thru the use of ♯6.

Beethoven: Op. 10.

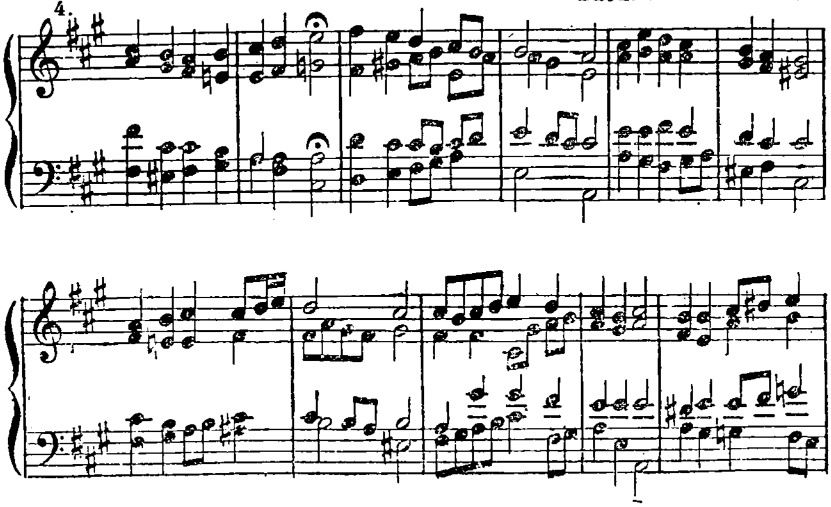
3.

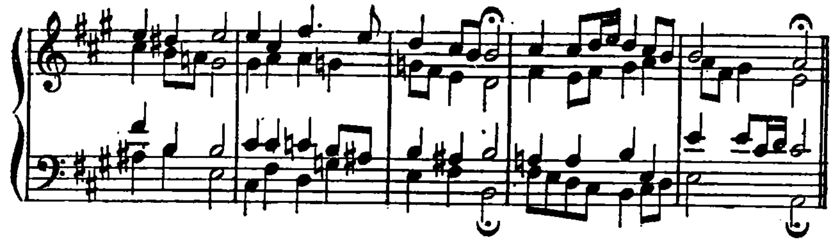


The longer excerpts which follow are by two of the greatest masters of chromatic harmony. Notice that Bach's modulations coincide with the rhythmic divisions, while Wagner's occur continuously.

Bach: *Johannes Passion.*

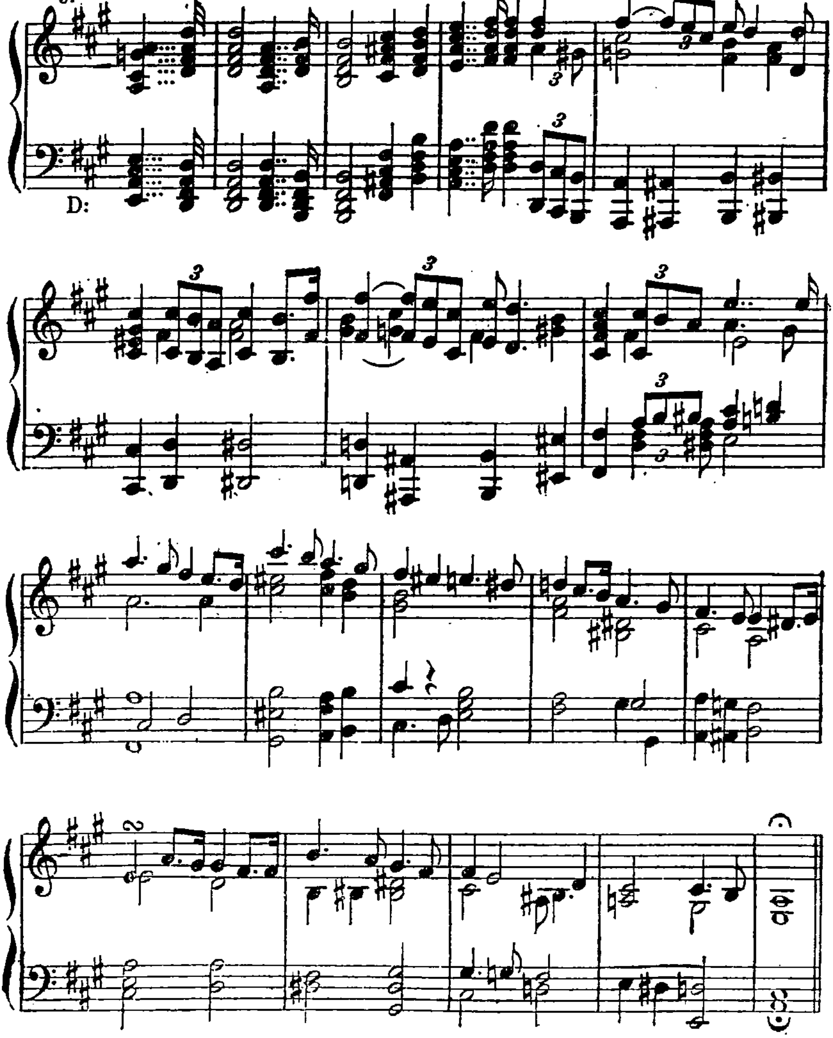
4.





Wagner: *Lohengrin*

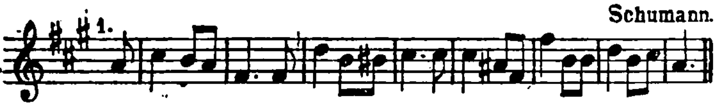
5.



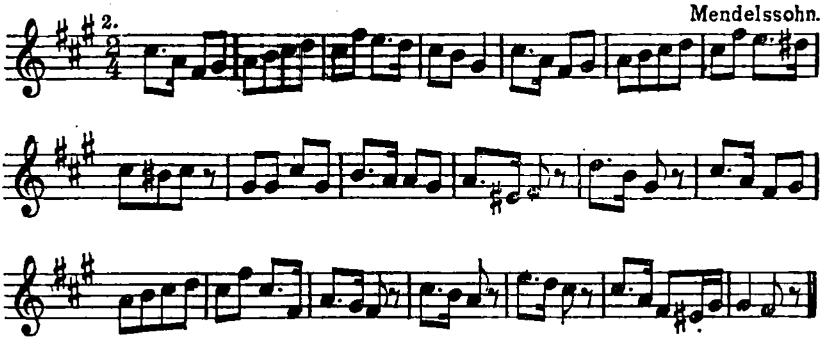
Melodies to Harmonize.

Employ #1 and #6 in the melodies of Ex. 134.

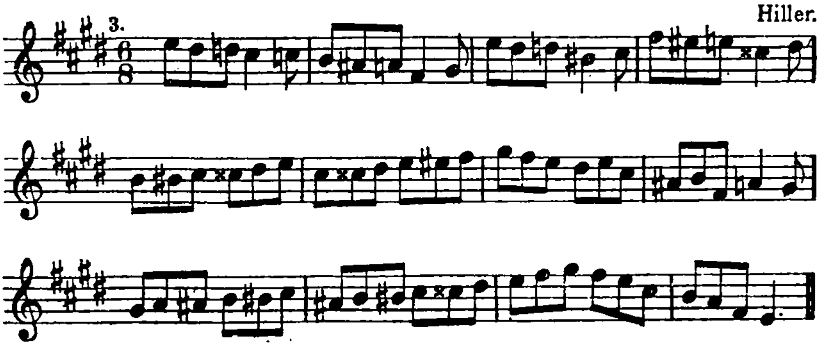
Ex. 134.



Schumann.



Mendelssohn.



Hiller.

Chapter XIV.

The Diminished Dominant (♭5).

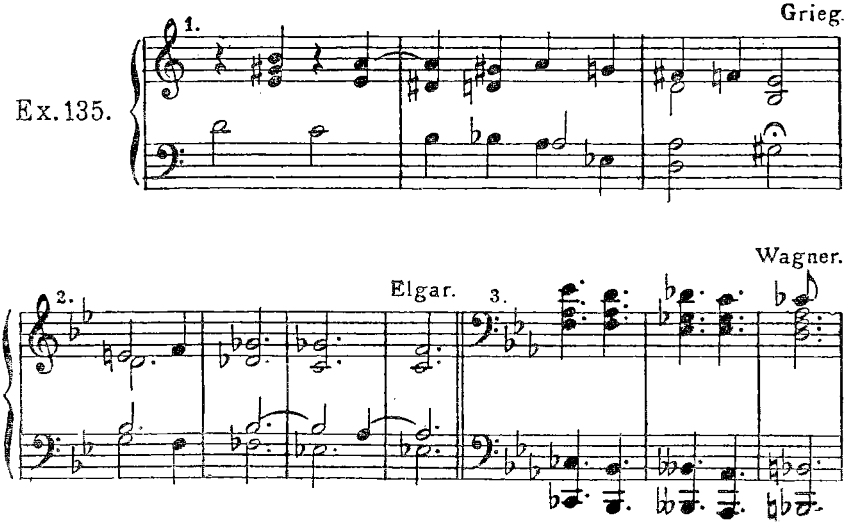
The diminished scale-5th (♭5) is seen less often than any other chromatic tone. Modern writers use it more often than the old composers because they are more accurate in their use of symbols. Some theorists deny the possibility of ♭5 being employed as a component of a chord. Since one encounters this chromatic in the works of master composers, it will be discussed briefly here.

In the preceding lessons the small seventh (♭7) was added to the tonic chord to create a demand for the subdominant. If a more somber color is desired, ♭5 may also be added to the tonic. This effect is heightened if the resolution is on the minor form of the subdominant. See No. 7 of Ex. 135.

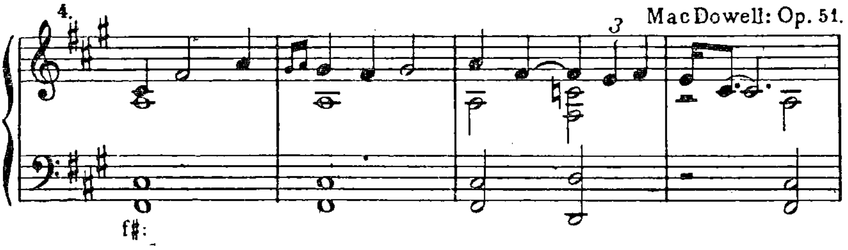
From the excerpts the student has probably noticed that descending small seconds, especially in the lower and middle registers, produce the effect of pathos or gloom. Where the sharper tones are also employed, as in some of the examples, the effect is modified or neutralized.

♭5 may appear as a bytone, or a harmony tone, as illustrated in the following examples:

Ex. 135.



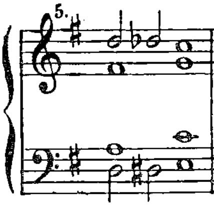
4.



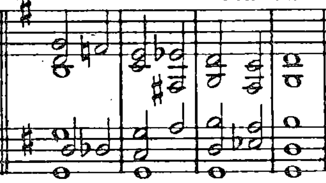
MacDowell: Op. 51.

In No. 5 the ♭5 and ♯5 appear together as bytones. The ♭5 is often written as ♯4.

5.

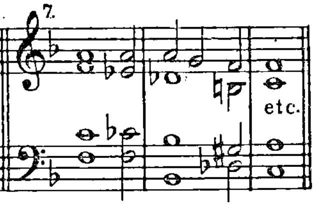


6.

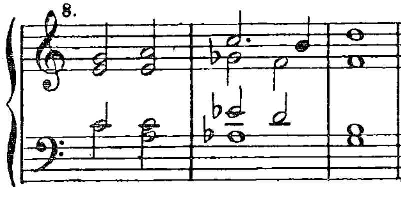


Schumann.

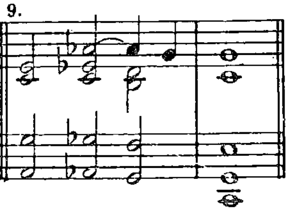
7.



8.



9.



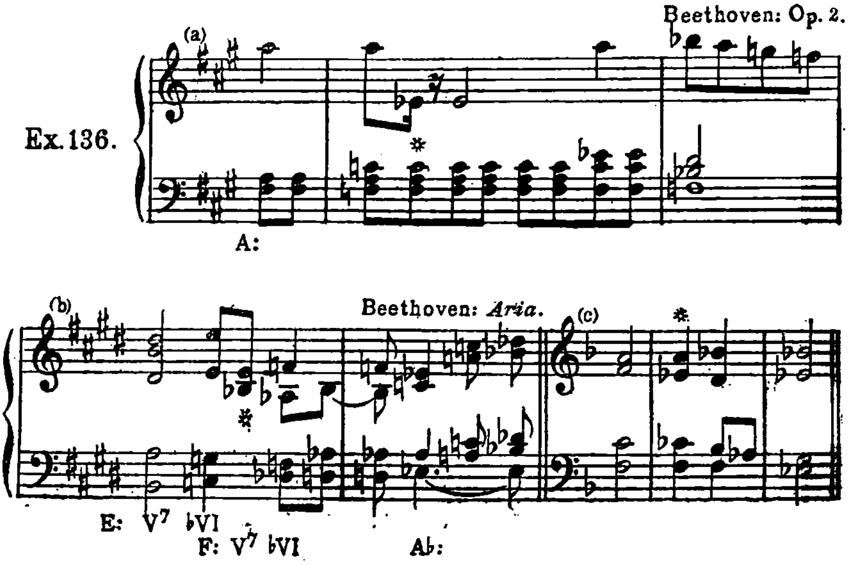
Modulations Employing ♭5.

At (a) the ♭VI of A is taken as the dominant of another key with ♭5 becoming the seventh of the new chord.

At (b), ♭5 of the key of E becomes the seventh of the V_7 in F. This chord progresses to ♭VI which leads to the key of A♭ (enharmonic with the mediant of E). Such modulations were rather unusual in Beethoven's time.

At (c), ♭5 of the key becomes the fifth of a chromatic supertonic chord in E♭.

Ex. 136.



Summary.

Facts to Remember.

1. A chromatic tone may occur as a bytone, or as a harmony tone changing the mode of the chord.
2. A chromatic tone may effect a modulation, but not necessarily so.
3. A modulation is effected or complete when the altered chord resolves in the new key; *the chromatic tone then becomes diatonic.*
4. As the component of a chord, the chromatic tone usually gives the trend to the progression of the chord.
5. ♯1 as root, 3rd or 5th creates the demand for the supertonic chord.
6. ♯2 may be 1, 3 or 5 of a chord demanding the mediant harmony.
7. A chord with ♭2 as root is free in its resolution.
8. ♭2 as 3rd usually occurs in an augmented-6th chord demanding the tonic.
9. ♭3 changes the mode of the key.
10. As root, 3rd or 5th of a chord, ♯4 creates a demand for the dominant harmony. As root of an augmented-6th chord, ♯4 demands I_{5}.
11. A chord containing ♯5 demands the submediant harmony.
12. ♯6 is rarely used, except as a bytone.
13. ♭6 suggests the minor mode of the key, but does not necessarily make it so.
14. As root, ♭7 is free in its progression. As chord 3rd, 5th or 7th it creates a demand for the subdominant harmony.

As stated before, by "demand" we mean the natural progression on the line of least resistance. The chromatic tones and chords may, and sometimes do, move otherwise, but the *demand* is the same, and the ear identifies them by this quality, rather than the actual progressions. Remembering the mental effect, one knows how and where to use the chords effectively.

Chapter XV.

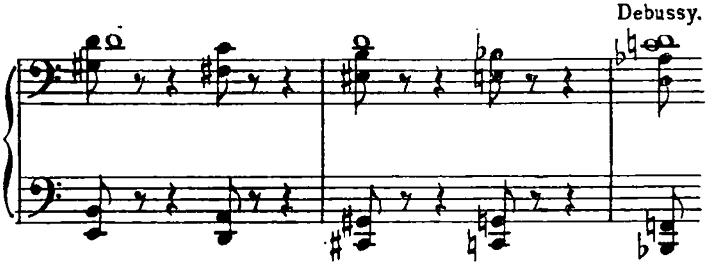
Modulation by Common Tone.

The ways of modulating by common tone are almost numberless when one considers both the diatonic and chromatic tones in a key, and the fact that a given tone may be employed as root, 3rd, 5th, 7th or 9th of a chord, any one of which may be taken for the other; not only of the same chord, but 1, 3, 5, 7, 9 of other harmonies in other keys.

Thorough practice in modulation by common tone will gradually lead the student to a clearer understanding of modern music.

In the excerpt from Debussy, D is first the chord-7th, then root, small ninth, large ninth and third. Strictly speaking this is not *modulation*, since no key is confirmed. Each chord could resolve as V-I and make a cadence. Successions of dissonant harmonies which do not resolve are characteristic of Debussy's music.

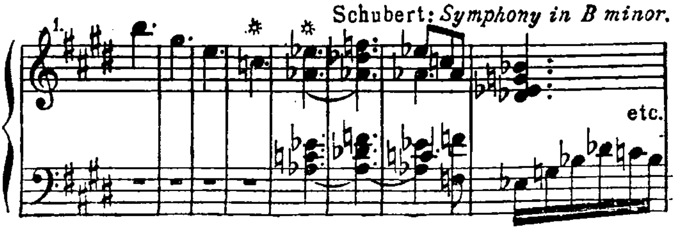
Ex. 137.



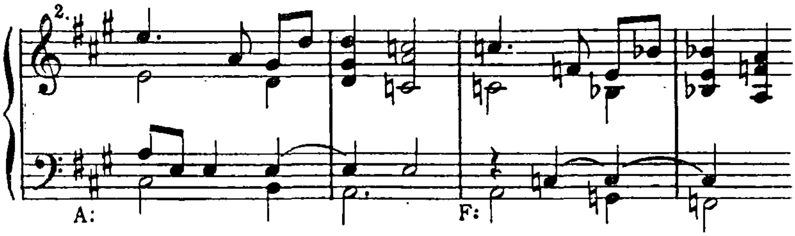
In the following examples modulation is effected thru a common tone and each key is confirmed. In the first three excerpts the common tone is a component of a triad. In No. 4 the common tone becomes the root of a seventh chord

In No. 1 the small 6th (♭6) becomes the 3rd of a new tonic.

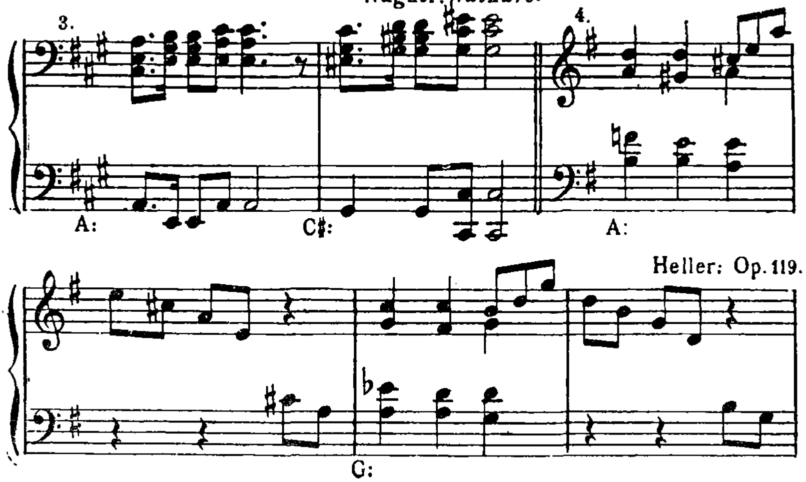
Ex. 138.



No. 2 shows shows the 3rd of A minor taken as 5th of the tonic of F major.



No. 3 shows the 3rd of the tonic taken as root of a new tonic. The second key is affirmed by the accented I_5, as discussed in preceding work. This can also be considered a *common chord modulation*, in which the chromatic III becomes the new tonic.

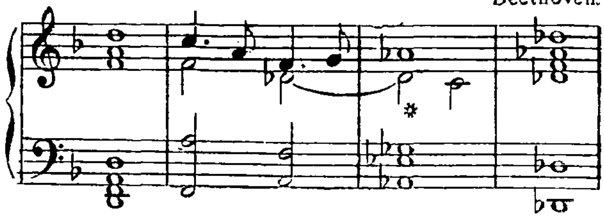


Wagner: *Walküre.*

Heller: Op. 119.

In Ex. 139 the only common tone is D♭, which is suspended over the V$_7$ of the new key.

Ex. 139.

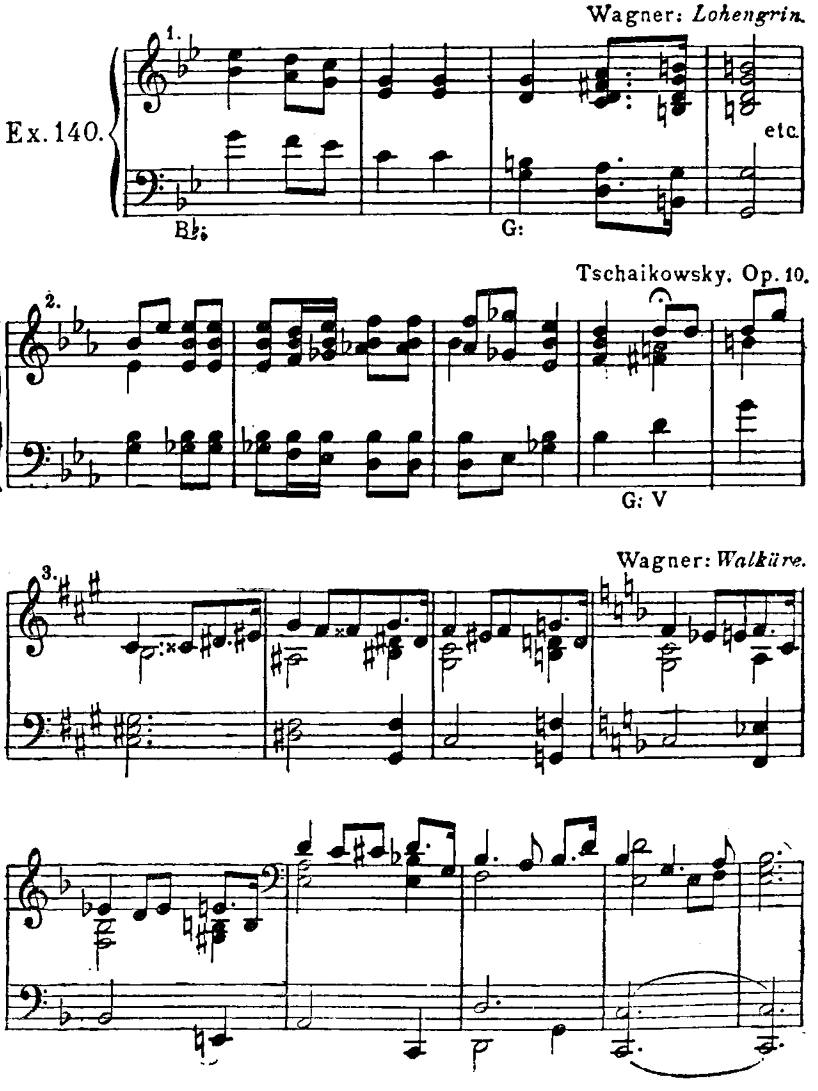


Beethoven.

Analysis.

Note the means by which the following modulations are effected.

Ex. 140.



Wagner: *Lohengrin.*

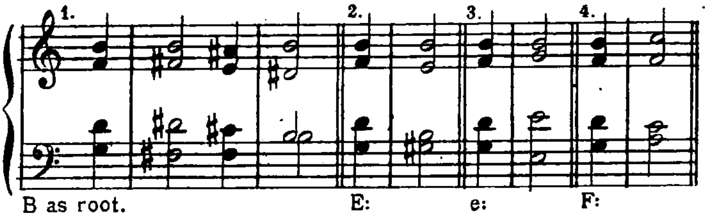
Tschaikowsky, Op. 10.

Wagner: *Walküre.*

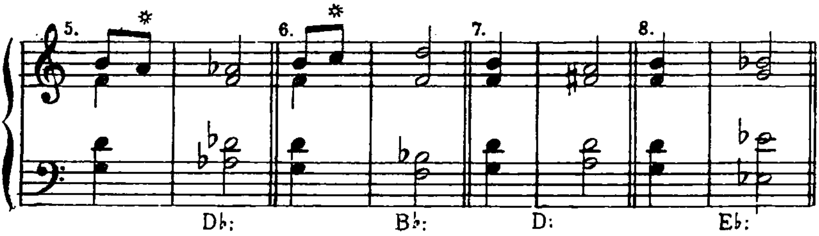
Practice in Common Tone Modulation.

Write and play a deceptive cadence by taking each tone of a dominant-7th chord as root, 3rd, and 5th of a new tonic.

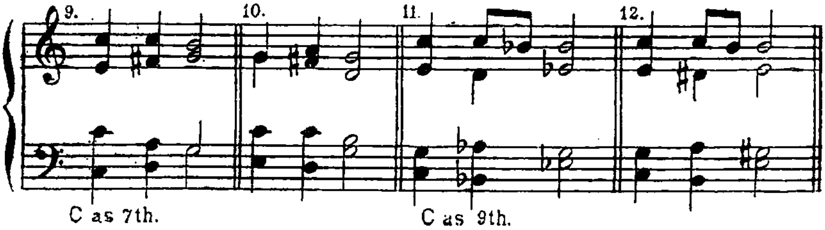
Ex. 141.



In moving to remote keys it is often smoother to employ a passing tone between the two harmony tones (*).

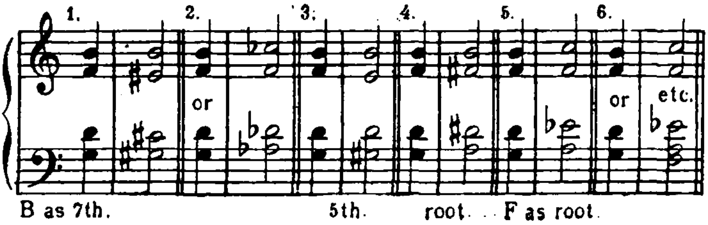


A given tone may be taken for a dominant 7th or 9th.



Write and play deceptive cadences, by taking a tone common to *two different dominant-7th* harmonies. Ex. 142.

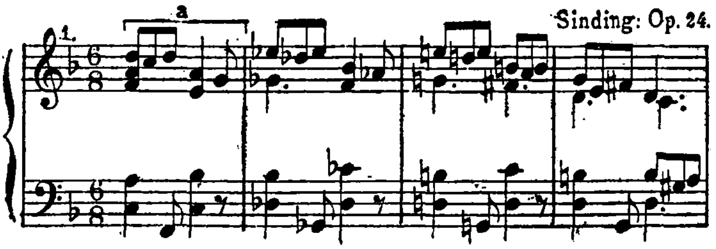
Ex. 142.



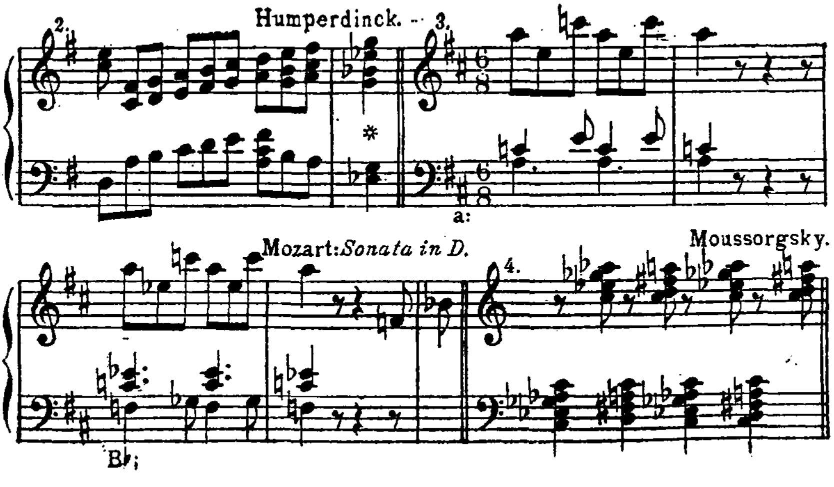
In Ex. 143, note how the modulations by common tone are made.

In No. 1 notice how the motive a is repeated in different keys. Find the common tone which links these keys together.

Ex. 143.



As shown in No. 2, a melody tone sometimes resolves as expected, but the tone of resolution is taken as a component of the tonic of another key.

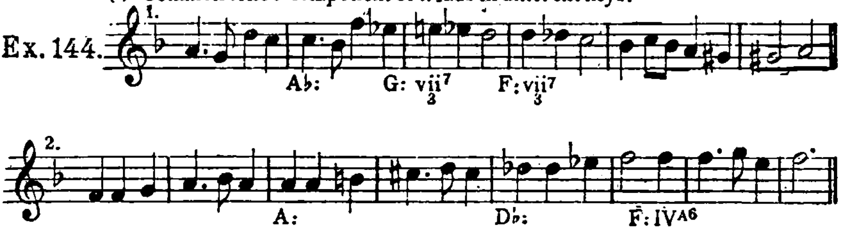


Melodies to Harmonize.

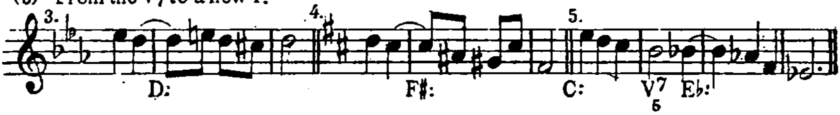
The melodies include modulations by common tone as indicated:

(a) Common tone a component of triads in different keys.

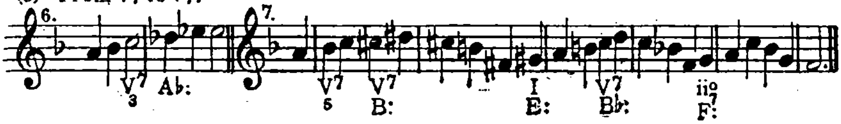
Ex. 144.



(b) From the V7 to a new I:



(c) From V7 to V7.

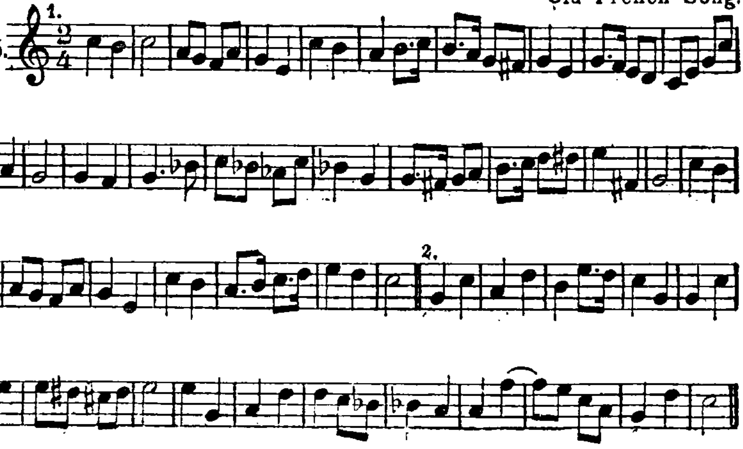


Longer Melodies.

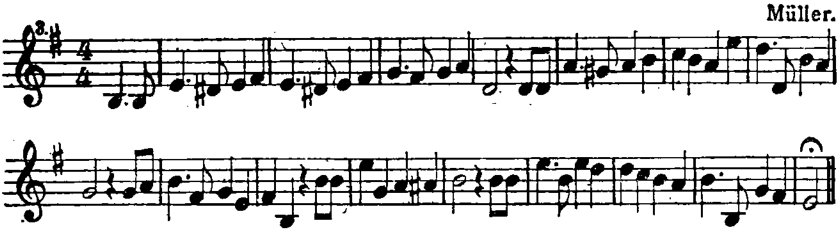
In the melodies of Ex. 145 analyze the form; note the modulations and the key relations, as well as sequences, etc.

Old French Song.

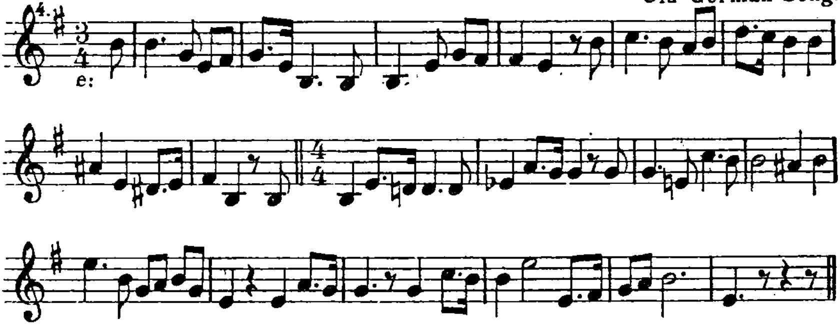
Ex. 145.



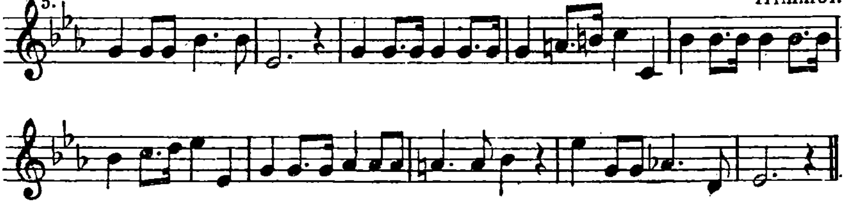
Müller.



Old German Song.



Himmel.

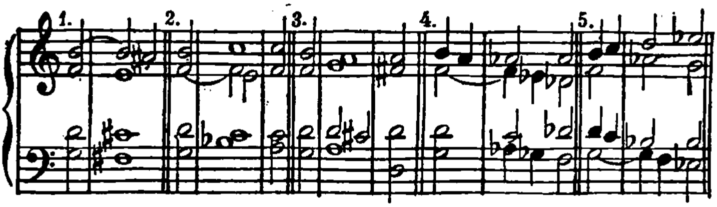


Chapter XVI.

Modulation by Common Tone (Continued).

The various tones of V7 may be suspended over the 3rd and 5th of another V7:

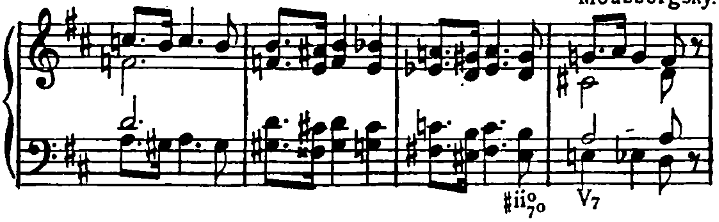
Ex. 146.



Successions of diminished seventh chords were discussed in Chapter II. Ex. 147 shows such a progression.

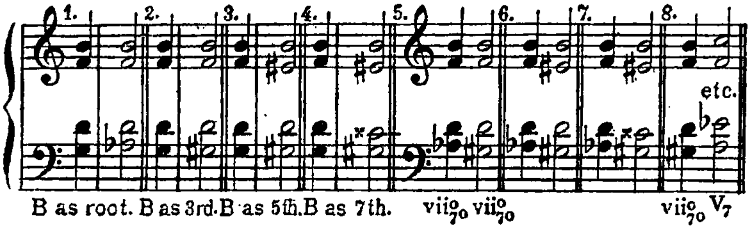
Moussorgsky.

Ex. 147.



Modulations can be effected thru a common tone from V7 to vii°7°; from vii°7° to vii°7°; from vii°7° to V7, etc., as shown in the following examples:

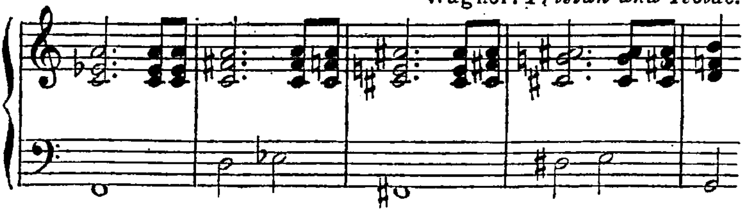
Ex. 148.



Ex. 149 illustrates the progressions discussed above.

Wagner: *Tristan and Isolde.*

Ex. 149.

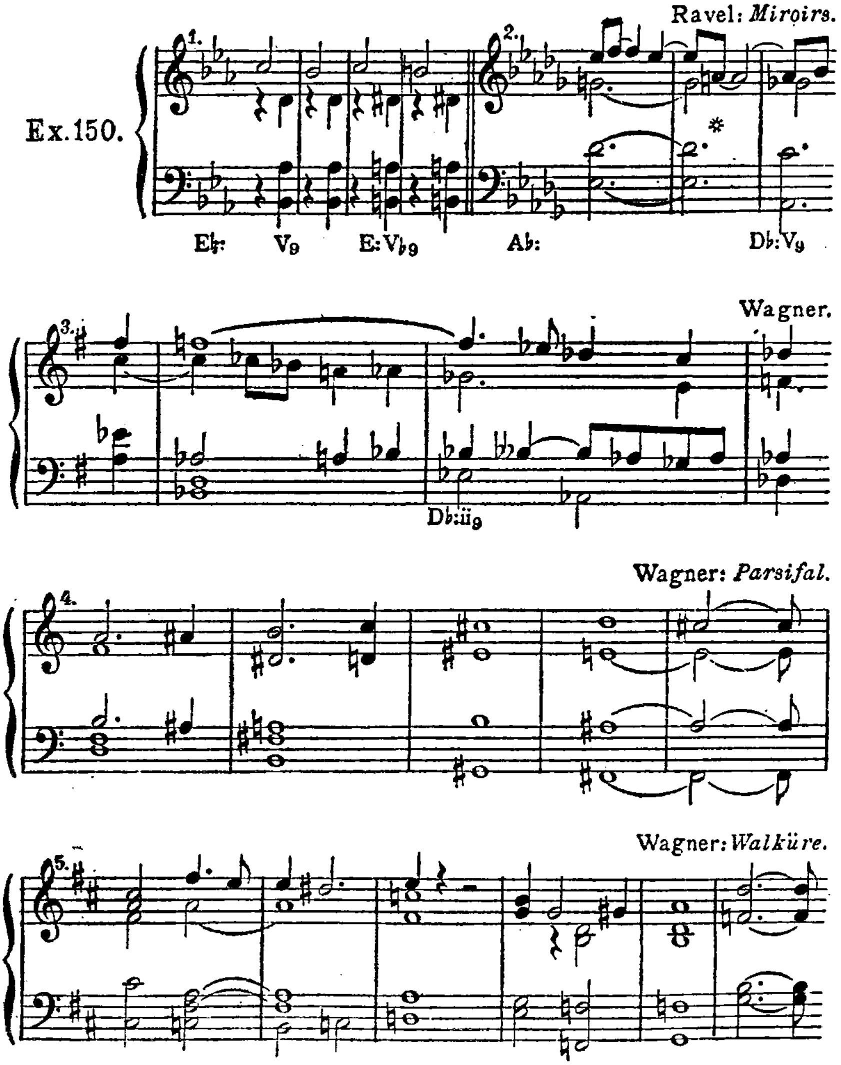


Find the common tones in the following excerpts and note the relation of keys.

In No. 1 a large ninth is taken for a small ninth.

In No 2 an appoggiatura resolves on a tone taken as large ninth.

Ex.150.

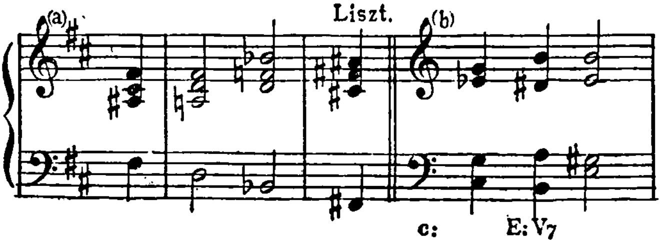


Enharmonic Modulation.

Modulations thru enharmonic changes are interesting and at times very subtle.

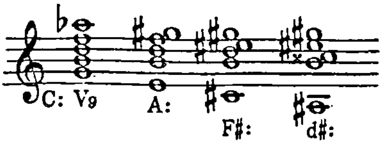
Ex. 151 (a) shows triads connected by common tone and with enharmonic changes. In each triad the root becomes the 3rd of the next chord. At (b) the small third of the tonic harmony is taken enharmonically as large 3rd of a V7.

Ex. 151.



By enharmonic changes, a dominant-9th chord may appear in four different keys:

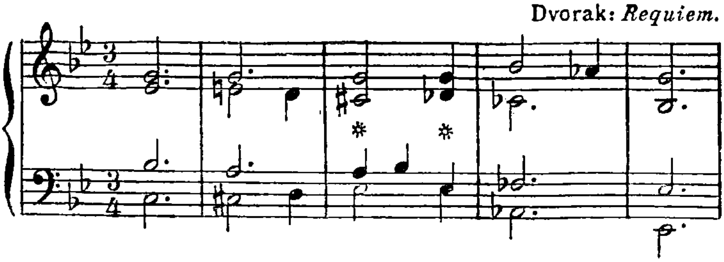
Ex. 152.



The next example shows the root of the augmented-6th chord enharmonically taken as the seventh of a V7.

Dvorak: *Requiem.*

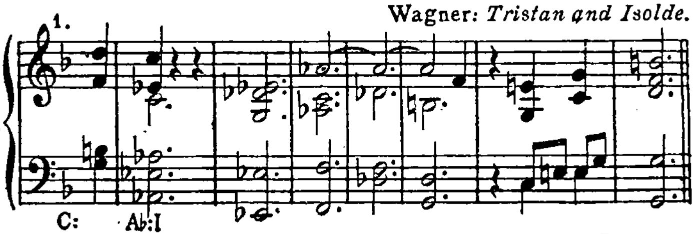
Ex. 153.



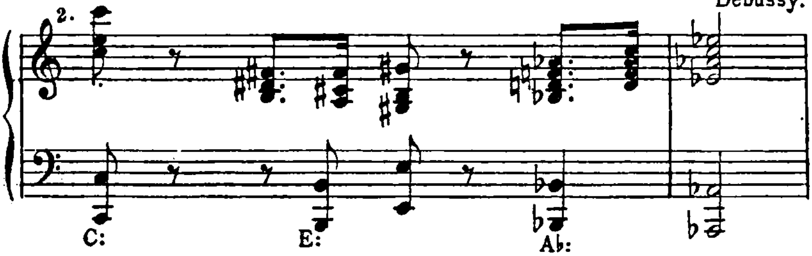
Ex. 154 shows one of Wagner's changes to the key a large third below and back again. Debussy makes an abrupt change to the key a large third above the tonic and then by enharmonic change to the key a large third below the tonic.

Wagner: *Tristan and Isolde.*

Ex. 154.



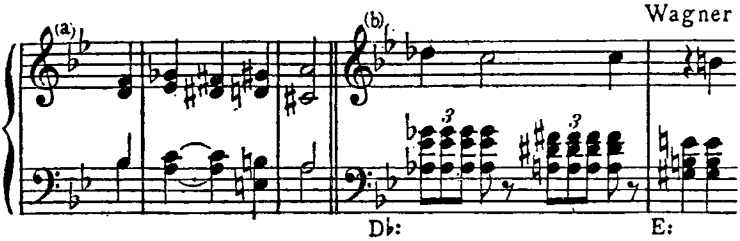
Debussy.



In the following example, at (a) one chromatic chord is taken for another, and by enharmonic change the modulation is made from a flat to a sharp key. At (b) the two tonics are an augmented second distant.

Wagner

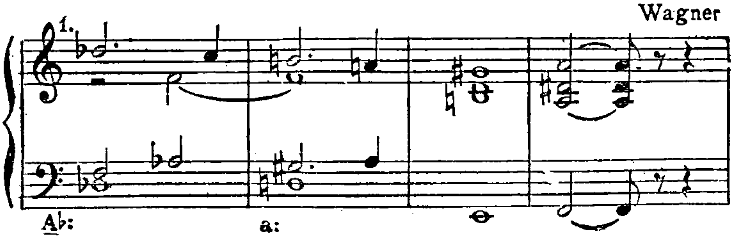
Ex. 155.



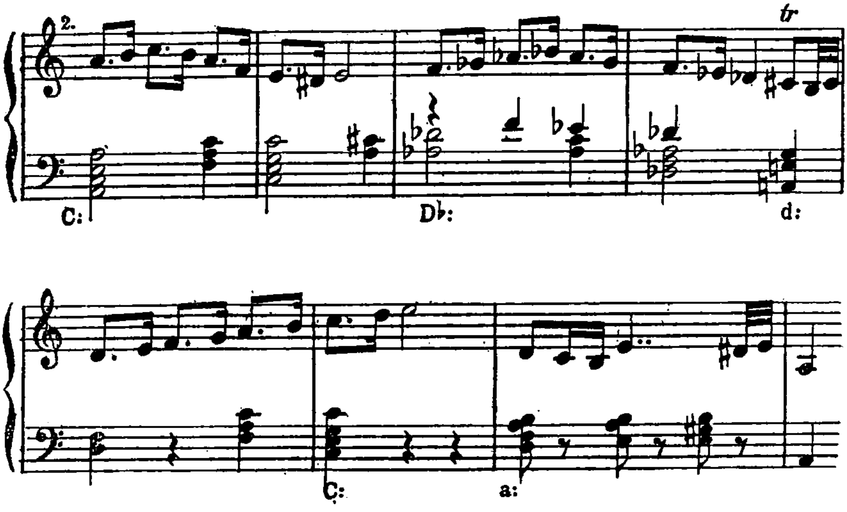
Notice how different composers have effected modulations to a key one degree higher or lower. Find the common tones and state whether they are chord-root, 3rd, 5th, 7th, 9th, or bytones.

Wagner

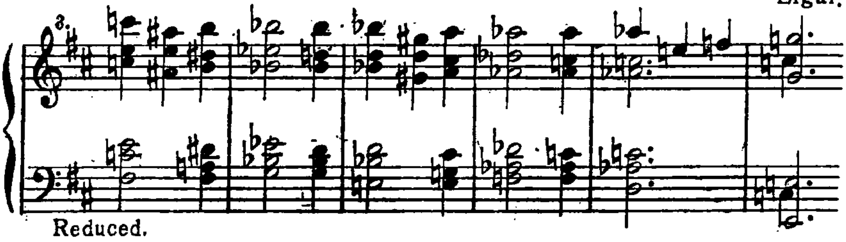
Ex. 156.



Rossini: *"Stabat Mater"*

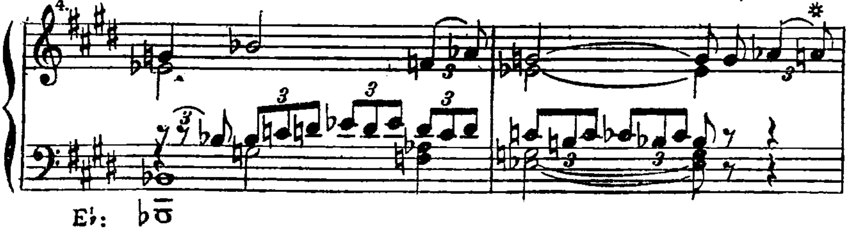


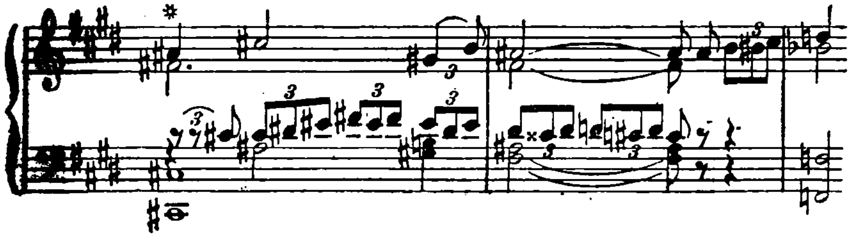
Elgar.

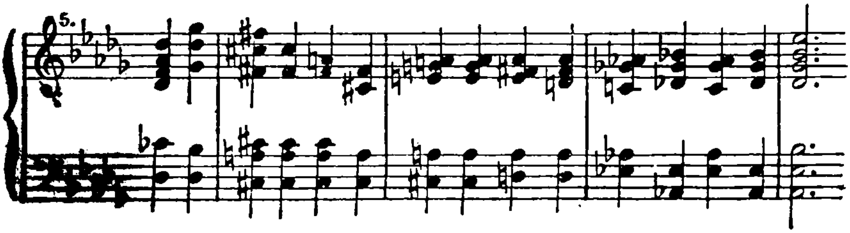


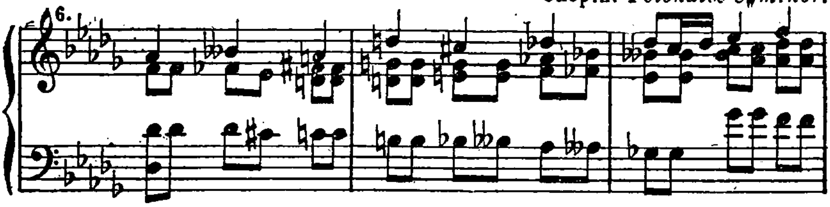
No. 4 shows the augmented 4th of the scale resolving up a half step as expected, but in this case the tone of resolution is notated enharmonically and taken as third of a new tonic chord (measures two and three).

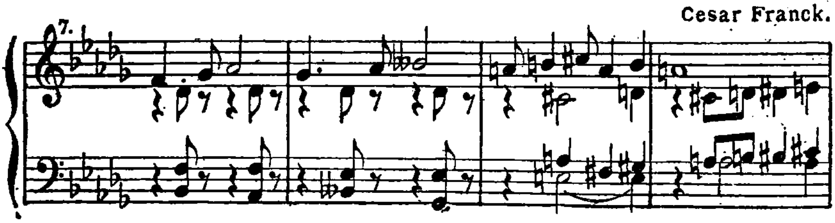
Rachmaninoff





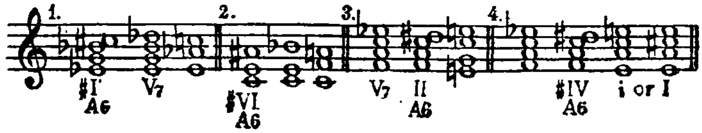

Ries: Op. 31.


Chopin: *Polonaise C♯ minor.*


Cesar Franck.

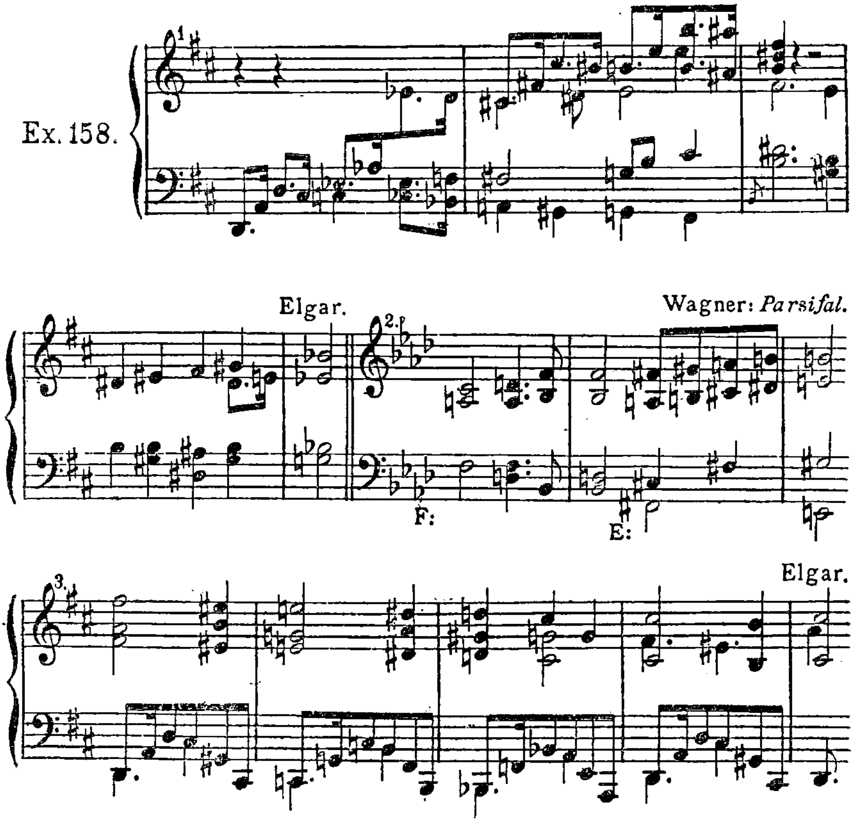
The enharmonic change of the augmented-6th chord to a dominant-7th, and *vice versa,* has been given before. Any one of them may be taken for another and effect a modulation:

Ex. 157.

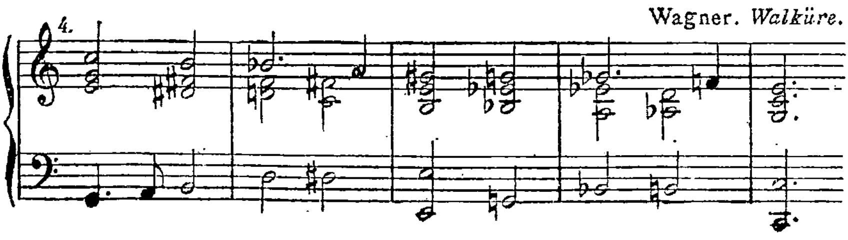


Ex. 158 illustrates several interesting and rather abrupt modulations with enharmonic changes.

Ex. 158.



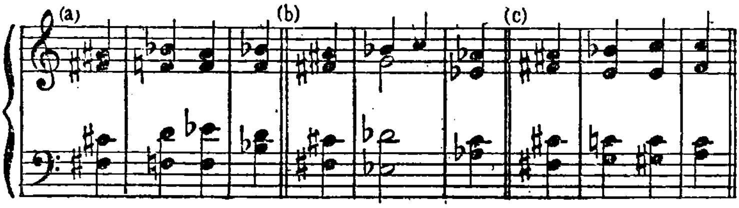
In No. 4, notice the chromatic scale passage in the upper voice. Try harmonizing the chromatic scale in both soprano and bass.



Practice in Enharmonic Modulation.

The best way to attain facility in modulation is to play and write original phrases and periods which include the various modulations given in the analysis. For example, refer to Ex. 159. Here A♯ becomes root, then 5th, 7th, etc. These patterns may be expanded as suggested in previous chapters.

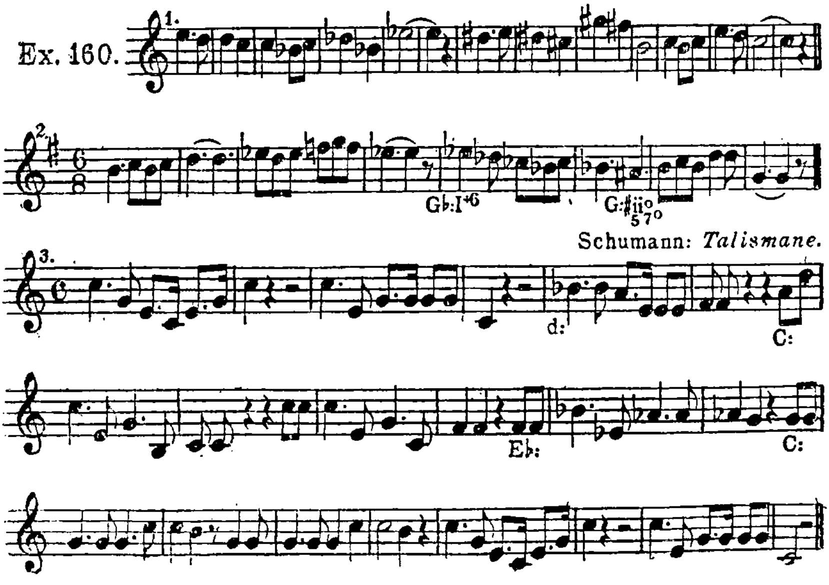
Ex. 159.



Melodies to Harmonize.

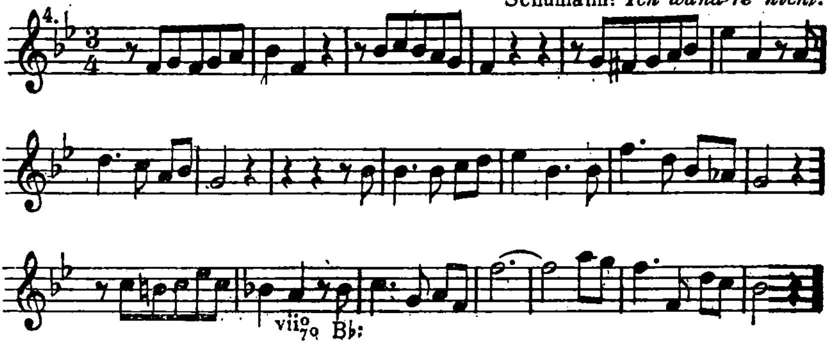
The following melodies include modulations by common tone.

Ex. 160.

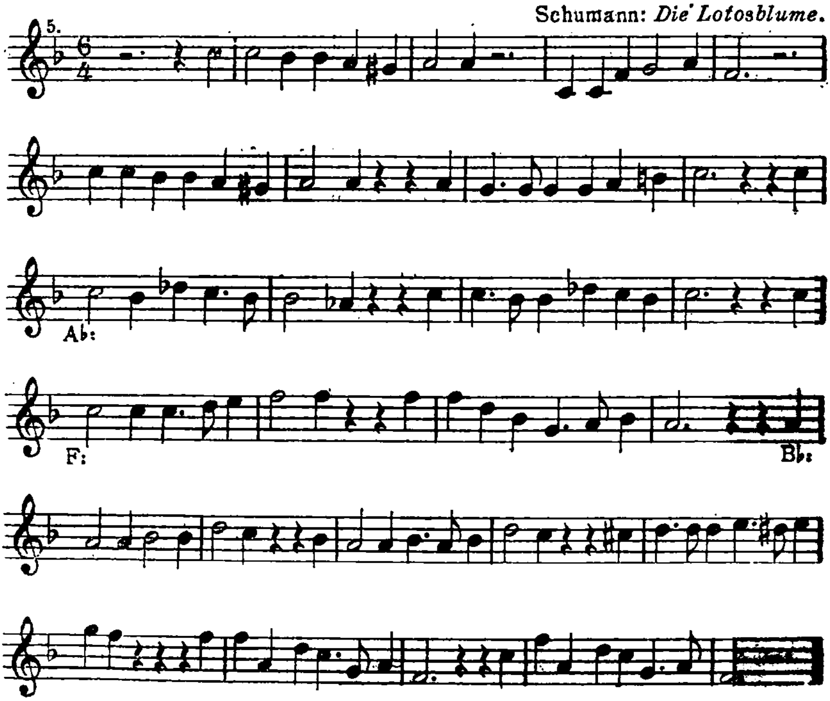


Schumann: *Talismane.*

Schumann: *Ich wand're nicht.*



Schumann: *Die Lotosblume.*

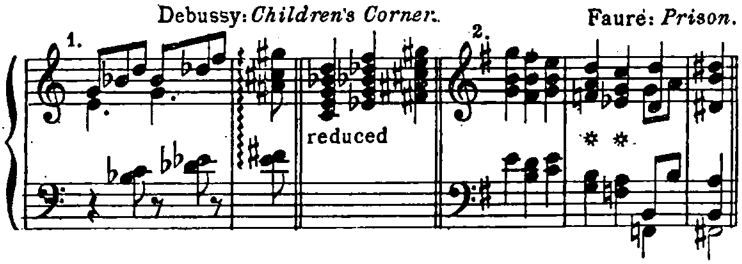


Chapter XVII.

The Twelve Tone and Six Tone Scales.

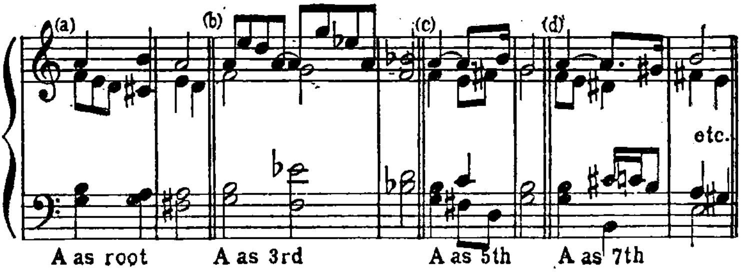
Successive dominant 7ths and 9ths have been quite common since Debussy. Note their use in the following excerpts:

Ex. 161.

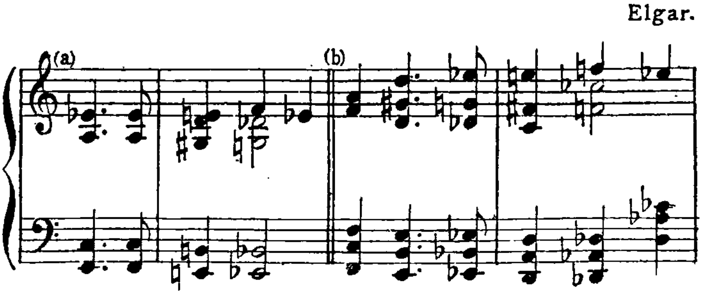


Try progressions of V_9 to V_9 as indicated in Ex. 162.

Ex. 162.



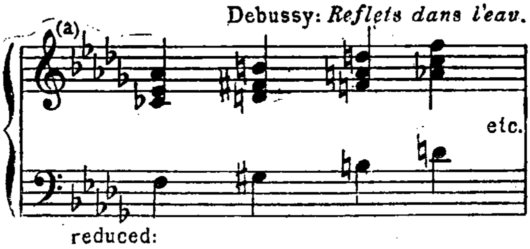
Ex. 163.



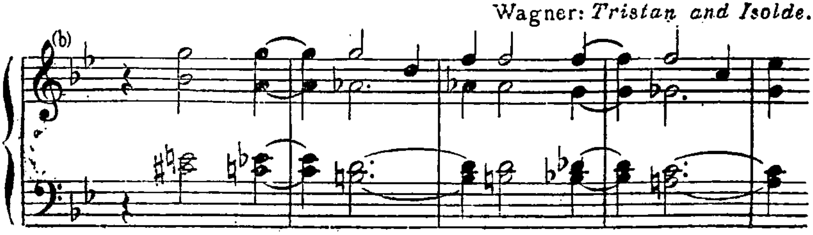
In Ex. 163 note the successive dominant 7ths and 9ths with no common tone. Such progressions cannot be analyzed in any key and are said to be written in the *twelve tone* scale. This is the same as the chromatic scale, in that it includes twelve half steps. The notation is not the same as the chromatic scale. Each tone is independent and may be written as a sharp, flat, etc., as desired. Usually when any combination of tones can be arranged in the traditional chord structure (by thirds) it is so written. The chords, however, have no relation to a tonic or dominant and are used in a perfectly free manner. In the Introduction to Chromatic Harmony it was said that much modern music is a pattern or design in which the chords have little or no key relation. They are employed as a painter would use bits of color to produce an impression. The most advanced types of chromatic progressions merge into the twelve-tonal system, the line of demarcation being almost imperceptible. Wagner, for example, usually gives one a sense of tonality, even with two or three chords. Debussy, however, writes progressions which do not belong to any key, in the older and stricter interpretation. It is interesting to create new tonal designs by using one type of chord in sequence, or by combining different species of seventh chords without any key relation. Refer to Ex. 164.

At (a) Debussy uses a series of third species chords. What chord line is indicated in the bass?

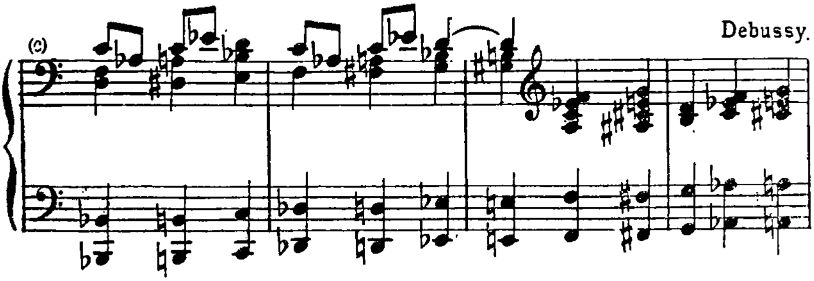
Ex. 164.



At (b) note the sequence and the species employed.

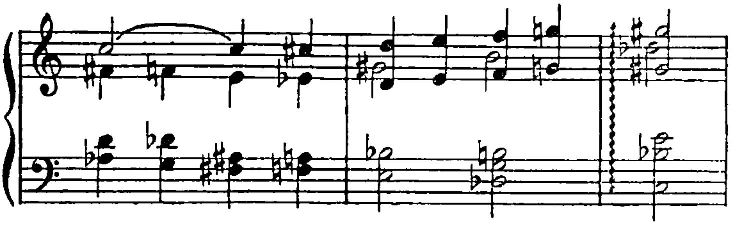


At (c) note the large and small 7ths and 9ths.



The following example shows a progression of doubly dissonant seventh chords. Such tonal combinations are more dramatic and less smooth than successive ninths.

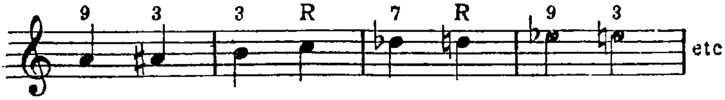
Ex.165.



Practice in Twelve-tonal Progressions.

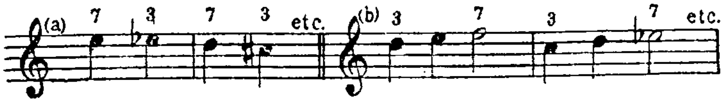
Harmonize the following, employing V_7 and V_9 only. The figures above the melody indicate the chord degrees. Try a bass in contrary motion.

Ex. 166.



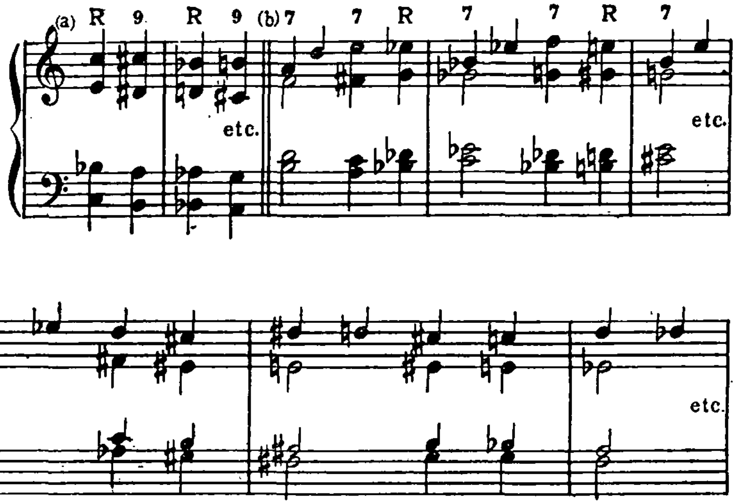
In the following employ third species chords only:

Ex. 167.



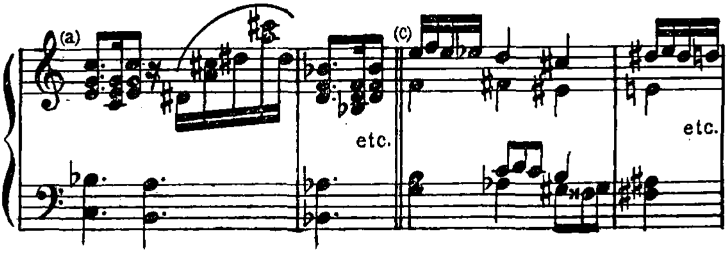
Play the following sequences at the piano and continue them. They can also be written.

Ex.168.



Ex. 169 shows the sequences of Ex. 168 arranged in pianistic forms. Play and write others and invent original progressions.

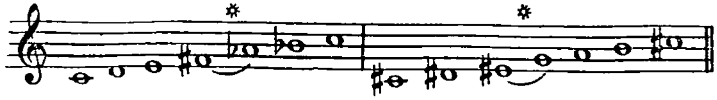
Ex.169.



The Six Tone Scale.

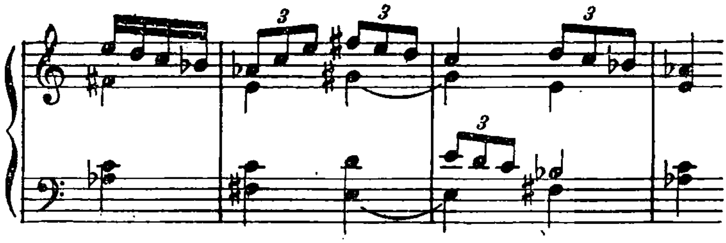
The six tone scale, often called the "whole tone scale," is a contraction of the diatonic scale, the two half steps being reduced to one whole step. There are but two *different* six tone scales as shown in Ex. 170. Notice that at some point it is necessary to notate a large second as a *diminished third.**

170.



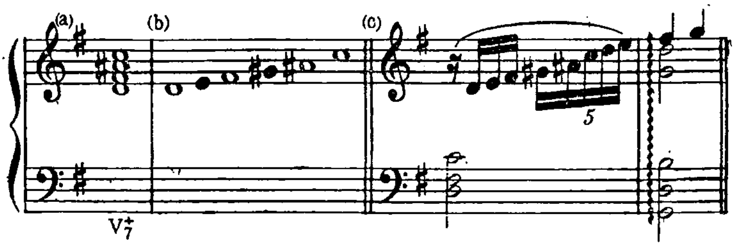
The whole tone scale was used particularly by Debussy and has been widely used since his time. When the chord progressions are kept strictly within the scale, monotony results, as the scale has little variety. Whole tone progressions are best employed in connection with other chords for variety in tone color. Ex. 171 shows a passage entirely in the six tone scale on C.

Ex. 171.



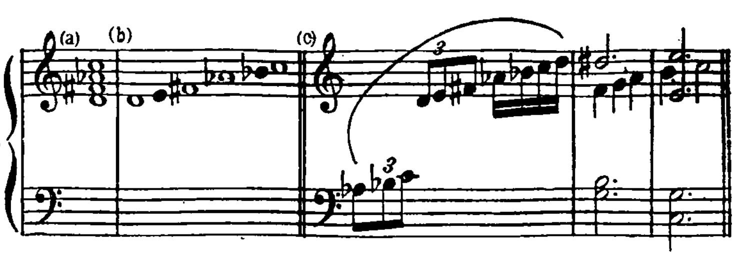
Passing tones may be used between the chord tones of an augmented dominant-7th (V^{+}_{7}) forming a whole tone scale. At (c) this progression is employed to embellish an otherwise ordinary cadence.

Ex. 172.



Passing tones may occur between the chord tones of a doubly dissonant chord, forming the whole tone scale. See Ex. 173. At (c) the II_{7} is embellished by such a scale passage. $\flat 5$

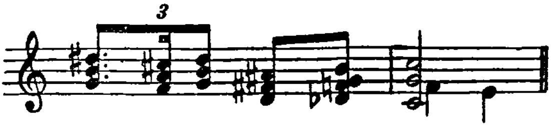
Ex. 173.



Analysis of Debussy's music will reveal many interesting uses of the whole tone scale.

Successions of augmented triads, as shown in Ex. 174, suggest the tonality of a whole tone scale.

Ex. 174.

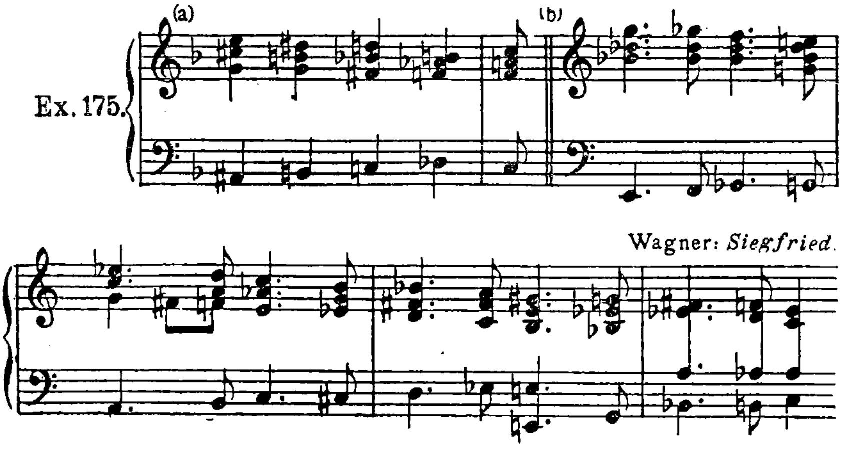


Chapter XVIII.

Contemporary Harmonic Experiments.

The harmonic idiom of the present is characterized by an increasing use of dissonance and the absence of tonality, in the accepted meaning of the latter term. Ex. 175 (a), which is a reduction of the accompaniment to a song by Schönberg (Op. 6.), is composed of dissonant chords which do not resolve, but the tonality of F is suggested. Compare this excerpt with (b). Schönberg derived his earlier harmonic style from Wagner. Comparing (a) with any of Schönberg's later works will show how far he has left the chromatic style behind. In his later compositions there is usually a total absence of key.

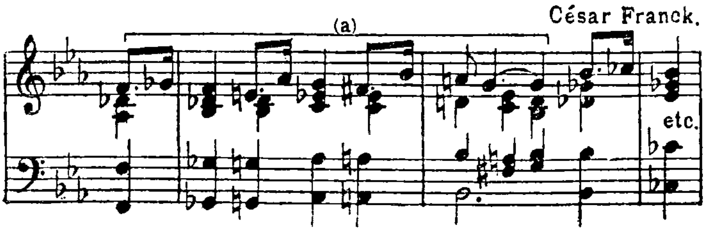
Ex. 175.



Wagner: *Siegfried.*

Play Ex. 176. Analyze the species of each chord. The key of g minor is confirmed at the close of motive (a) but the sequence of dissonant chords is unusual. Continue the sequence at the piano. César Franck prepared the way for many of the modern harmonic ideas

Ex. 176.

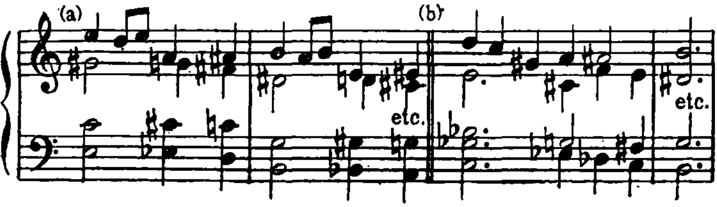


César Franck.

Successive Dissonant Chords without Resolution.

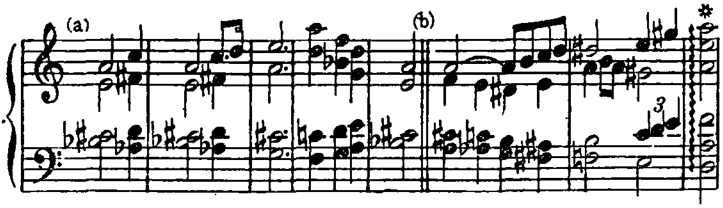
Several dissonant chords can be connected sequentially as shown in Ex. 177. There is no tonality in such passages. Analyze the species of the chords, note the movement of voices and continue the pattern for several measures at the piano. From this keyboard practice the student can acquire the newer harmonic devices.

Ex. 177.



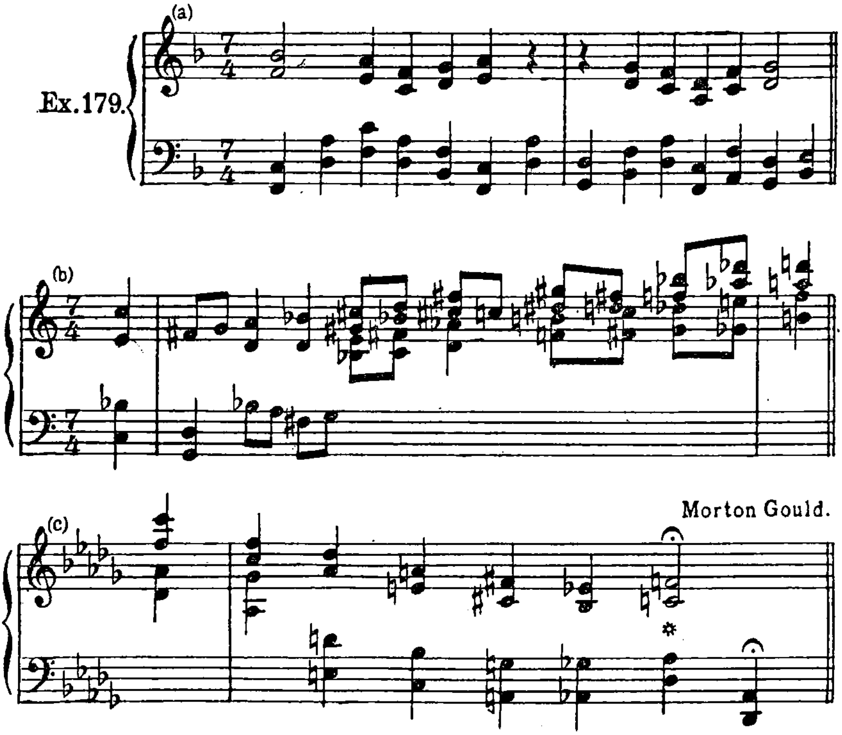
Ex. 178 illustrates progressions of dissonant harmonies which are held together only by a definite melodic line. In (a) note the fifths in both treble and bass staves of measure four. In (b) noticė the descending augmented triads against an ascending melody line. The final chord includes an unresolved "added tone." (*)

Ex. 178.



Compare the three excerpts from "Nocturne" by Morton Gould, Ex. 179. At (a) the effect is rather primitive and rugged, due to the combination of perfect fourths and fifths. The chords of this passage are mostly second species sevenths. At (b) the effect is warmer and richer, due to the many *third species chords* and the augmented fourths and diminished fifths in the left hand part. At (c) there is an unusual cadential passage of chords built of perfect fourths and small sevenths. The final chord includes an unresolved bytone (*).

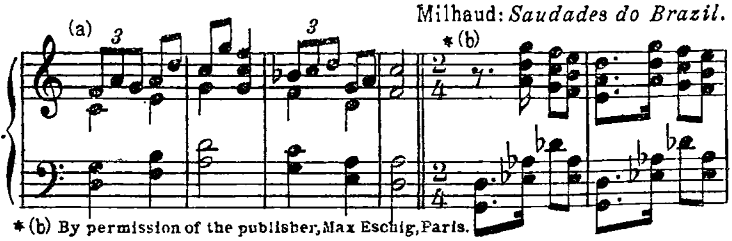
Ex.179.



Interval Structures.

The conception of chord structure has altered radically in recent years. At present almost any combination of intervals is accepted as a chord, or at least employed as the older composers used chords. For example: structures of fourths have become common of late. See Ex. 180.

Ex.180.

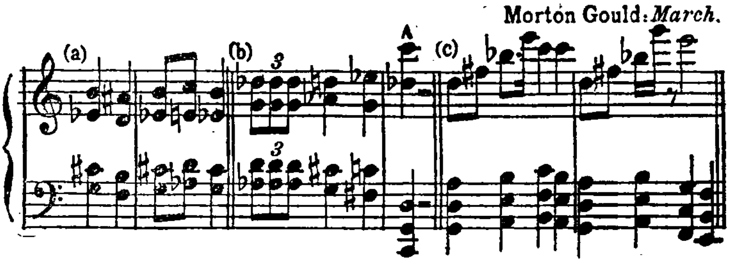


✱(b) By permission of the publisher, Max Eschig, Paris.

The opening of "King David" by Honegger contains a beautiful passage of interval structures in fourths over a tonic pedal.

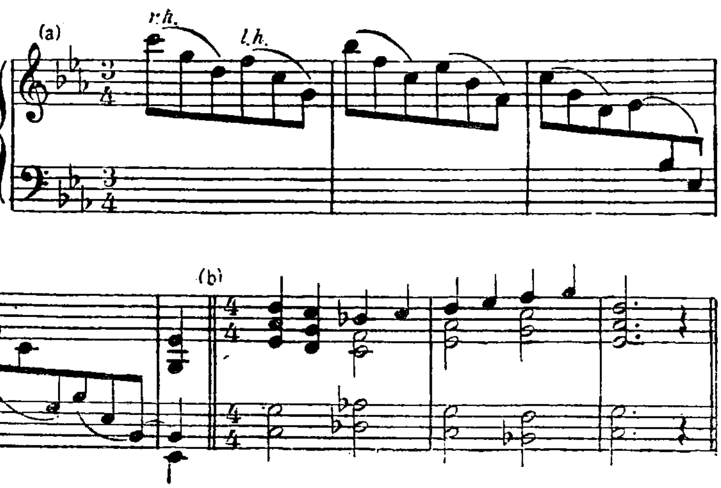
Ex. 181 illustrates several dissonant structures of contrasting intervals. At (a) the intervals in the treble staff all sound like small sixths altho notated as augmented fifths. The intervals in the bass staff are all augmented fourths. Notice in (b) that all the intervals of the first measure, except one, sound alike. The cadence measure defines the chord of C but the large and small scale second are added as unresolved bytones. At (c) the bass consists of chords built in fifths. There is no tonality, and the melody is unrelated to the accompaniment.

Ex.181.



Play and transpose the patterns of Ex. 182.

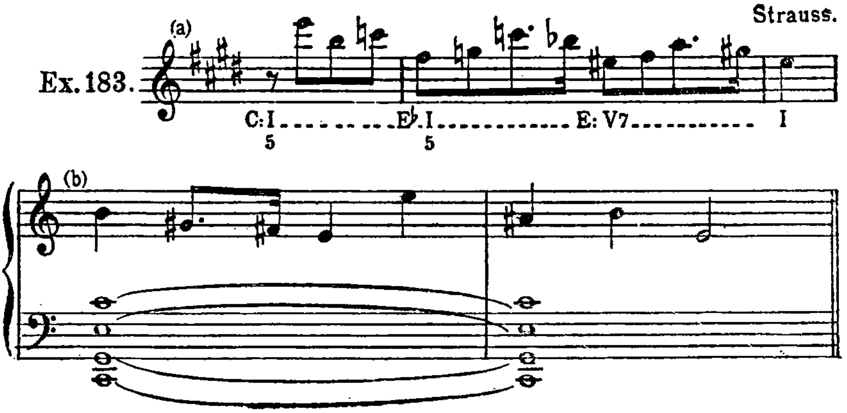
Ex.182.



Polytonality.

Polytonality means two or more different tonalities heard *at the same time.* The excerpt from "Rosenkavalier" by Richard Strauss, Ex. 183 (a), is not polytonal, but it is prophetic of the more advanced style where several keys are employed simultaneously. In this example, three unrelated keys are heard in rapid succession with no preparation. The next step is to employ several keys at the same time. At (b) a simple example of polytonality is shown. The melody defines the key of E, altho it is not entirely foreign to the chord of C major sustained beneath it.

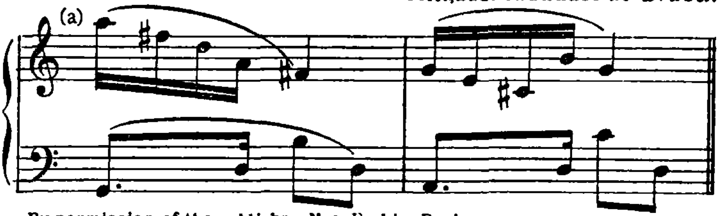
Ex. 183.



A more advanced type of polytonality is shown in Ex. 184. Here the different keys are distinct. In (a) the I and V of D are employed against the same chords in G. At (b) the keys of E and B♭ are used simultaneously. Later in the composition, Prokofieff reverses the passage, employing B♭ in the treble and E in the bass.

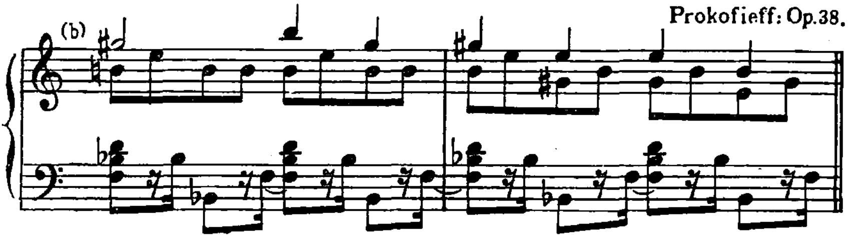
Milhaud: *Saudades do Brazil.*

Ex.184.



By permission of the publisher, Max Eschig, Paris.

Prokofieff: Op.38.



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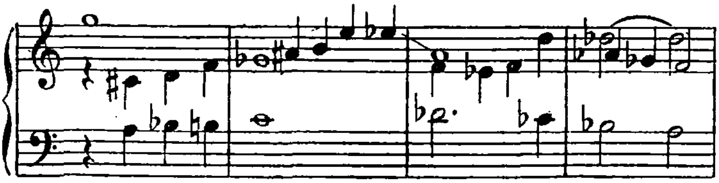
Polytonality is much more effective in orchestral writing than in piano compositions. The various colors of the orchestral instruments modify the harsh effects caused by two or three unrelated tonalities. Honegger's "King David" contains some remarkable and effective polytonal passages.

The student can experiment by writing melodies over the accompaniments given in preceding chapters, having melody and accompaniment in different keys. Refer again to Ex. 181 (c) and to Ex. 189.

Atonality.

It is easier to define atonality than to classify any single example as definitely atonal. When a composition is written contrapuntally, allowing the individual melodies perfect freedom of movement, the harmonic combinations become so dissonant that they lose any resemblance to ordinary chords. The feeling for key is lost and *atonality* results. Ex. 185, altho not unusually dissonant, shows three melodic lines which pursue their way independently with no regard for either chord structure or key.

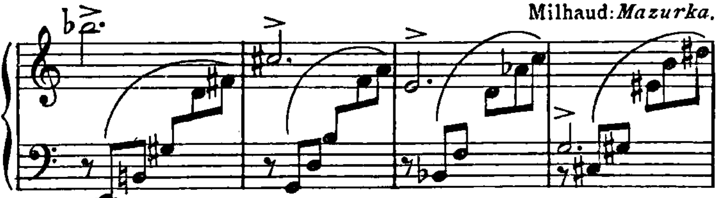
Ex.185.



There is a prevailing opinion among harmony students that atonal writing is more or less "hit and miss." This is not true. Refer to Ex. 186. This passage is constructed with mathematical precision, yet the total effect is pleasing to many people. The arpeggio figure in each measure outlines a V_9 chord which *suggests* but *does not confirm* a key. The melody tone in each measure counteracts any feeling for key. The melody line consists of equal skips and has no tonality.

Milhaud: *Mazurka.*

Ex. 186.

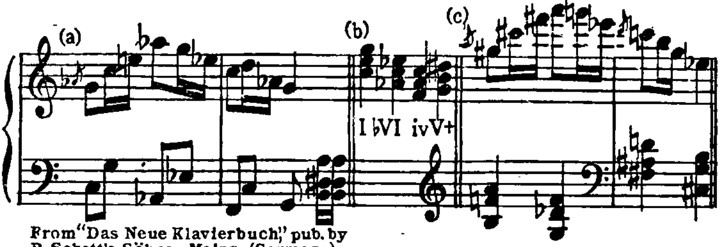


From "Das Neue Klavierbuch," pub. by
B. Schott's Söhne, Mainz, (Germany)

Ex. 187 illustrates two excerpts from the same composition. At (a) the key of C is affirmed. A reduction showing the chord scheme is seen at (b). At (c), which is a development of the theme at (a), the effect is atonal. The chords in the bass can be classified by species but the melody is unrelated to them.

Bornschein: *Conférence.*

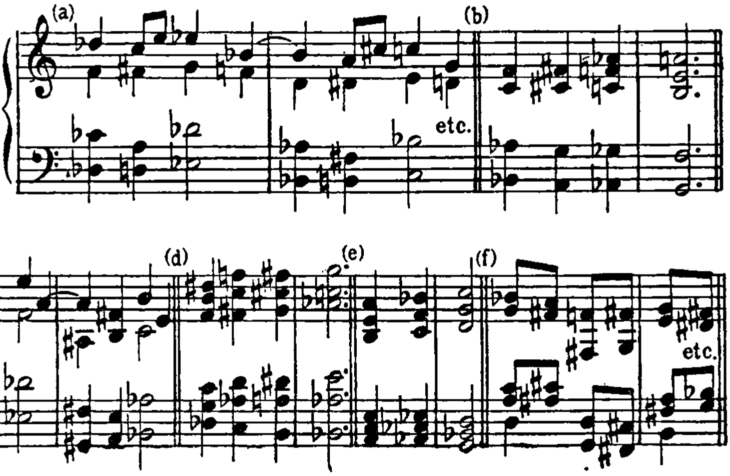
Ex. 187.



From "Das Neue Klavierbuch," pub. by
B. Schott's Söhne, Mainz, (Germany)

Play the patterns of Ex. 188. Analyze the interval structure minutely and note the movement of the parts. Transpose or continue in sequence. The patterns at (a) and (b) include familiar chord forms, while (c) and (d) are more dissonant applications of the same idea. At (e) and (f), which are arranged from Op. 26 of Hindemith, the effect is distinctly atonal.

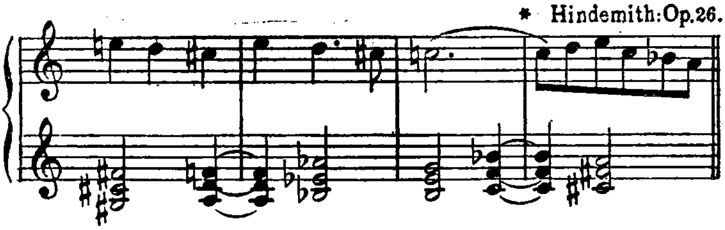
Ex.188.



Ex. 189 illustrates an atonal effect in which a very clear melody line is accompanied by a progression of fourths, the latter having no harmonic relation to the melody.

* Hindemith: Op. 26.

Ex.189.



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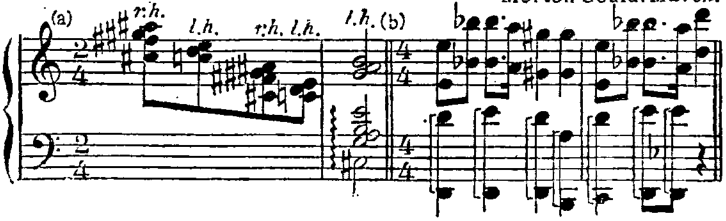
Play Ex. 190 (a). The groups of tones in the first measure can be termed "tone clusters." They do not constitute a chord but are employed in the same manner as one would use chords.

Morton Gould: *March.*

Ex.190.



A tone cluster may vary from three or four tones to large groups as shown at (b). The latter include all the white keys between the extreme notes indicated by brackets. Where the flat appears (second measure of bass) the following cluster includes all the black keys.

In a high register, tone clusters are often very delicate and produce a charming effect. In a lower register they suggest a percussion instrument. The masses of sound produced at (b) are effective as a rhythmic device. When written for the piano, tone clusters are played with the fist, palm of the hand and the entire forearm. See the works of Leo Ornstein, Henry Cowell, the last number of Op. 26 by Hindemith, etc. The possibilities of tone clusters in orchestral writing are without limit. In piano music their use easily becomes monotonous unless reserved for dynamic climax and special percussive effects.

Conclusion.

The preceding chapter is a mere outline of the various experiments by contemporary musicians. No attempt has been made to justify any of the harmonic devices on esthetic grounds. Such a discussion would go far beyond the province of a text-book.

Having become conversant with the modern trend in harmony, the student can judge for himself whether he cares to pursue any of the paths indicated. The material of music is constant but there are limitless possibilities in the manipulation of that material. No art remains vital unless its horizon is continually enlarging.

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